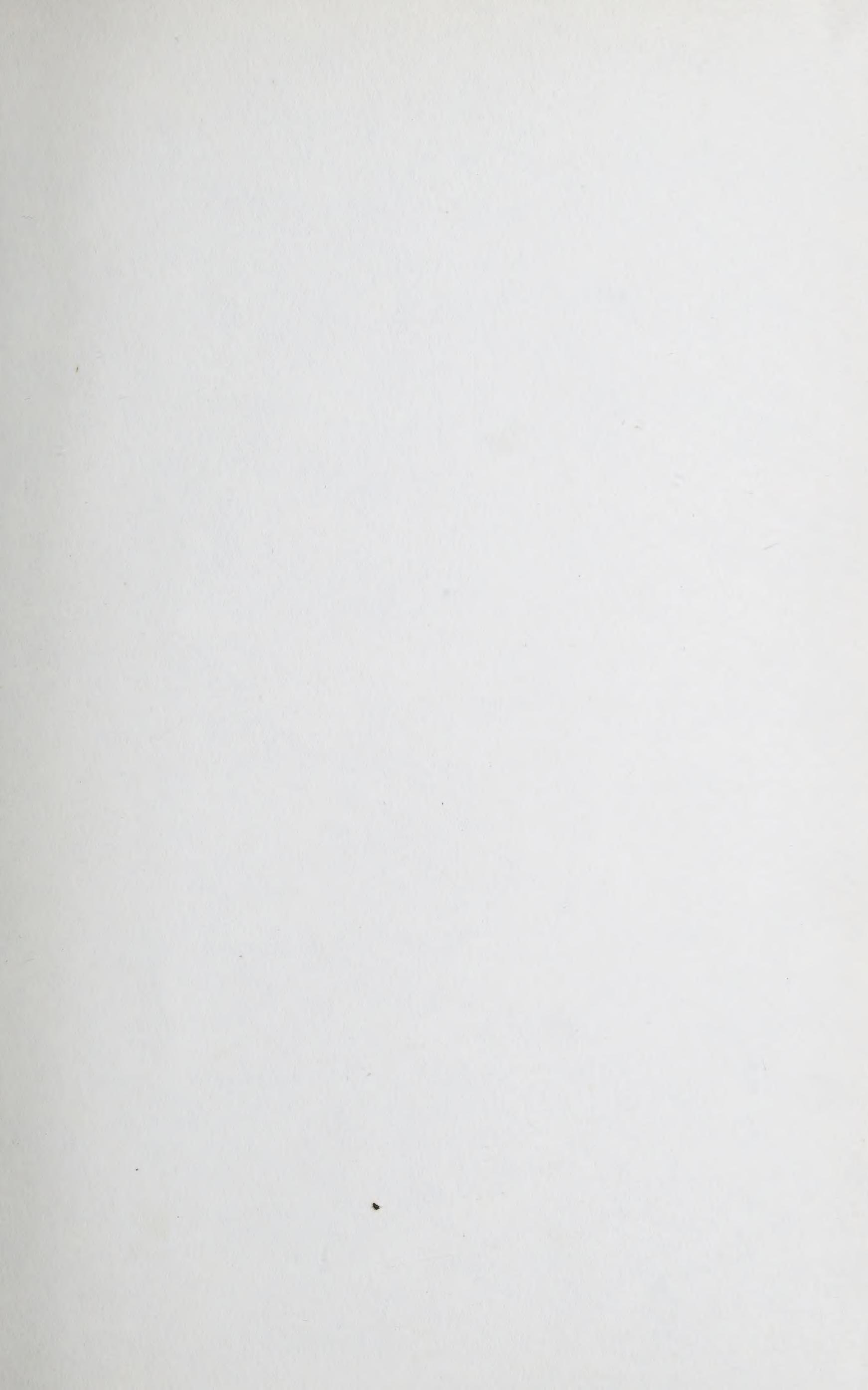


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Redon, M.

Kings River National Park, Calif
May 20-June 3, 1942

M. Redon, 1942

filed 6/8/42

Journal

May 20, 1942 - Cedar Grove, S. Fork Kings R., 4600 ft. Fresno, Calif.

Left Berkeley at 5 a.m., Mrs. Grinnell driving her car and with J. Crowley, T. Ogilvie, Mrs. Miller and I as passengers. Dr. Miller and Dr. Harvey Fisher followed in the truck. When we left Berkeley the weather was very clear & nice. We followed highway 99 into Fresno and stopped in the Park for lunch. From Fresno we got on Highway 180 which took us directly into the park. By this time, the weather was very hot. We went first to the Park Headquarters, 7,000 ft. elevation. Here, the weather was so cool as to be almost cold, and some snow remained ^{on the ground} there. We stopped up there while Dr. Miller went to see the Superintendent & Mrs. Grinnell tended to our groceries. We observed some birds. Specifically, we noticed some chipmunks, a Western Tanager, and saw also a Fox Sparrow there. Came down 0⁴, 600 at 5:30 p.m. set traps after dinner.

Seen and heard on trip -

Red-winged Blackbird

Linnet

Brewer Blackbird

Western Meadowlark

Boyle ^{King} Snake

California Jay

Jackrabbit

Brown Towhee

Ground Squirrel

California Quail

Marsh Hawk

Western Mockingbird

Burrowing Owl

Cork Sparrow

Mourning Dove

Weasel

English Sparrow

Barn Swallow

M. Redon 1942

Journal

Cedar Grove, S. Fork Knip R., Hoope, Fresno Co., Calif.

May 20, 1942

Black Phoebe

Western Tanager

Western Kingbird

Chipping Sparrow

Turkey Vulture

Chipmunk

American Goldfinch

Fox Sparrow.

California Woodpecker

Black-headed Grosbeak

Ground Squirrel

Piping Owl.

May 21, 1942

Had set our traps, 14 in number, east of camp, west of the road which leads to the Bridge. General vicinity is covered with Yellow Pine, and Incense Cedar with Manzanita bushes scattered about and a few Oak, rather small-leaved & stunted looking variety. While setting our traps, ^(May 20) heard & saw some Woodpeckers of undetermined species, & saw some Swifts high above. Some sort of bats were seen flying overhead as we worked (*Myotis* species?). At about five-thirty in the morning, we went back to our trap-line and found an adult male Peromyscus maniculatus (1) in the first trap, which had been set under a Manzanita bush. The remaining traps were empty. Two had been sprung and their bait was gone.

M. Redox, 1942

Journal

Cedar Grove, S. Fork

May 21, 1942, Kings R. Canyon, Fresno Co., California

Started about 1:15 of a warm, but overcast day led by Mr. Dixon. We proceeded up following the trail South out of Cedar Grove. Following trail we saw Snow plants & several lizards, coyote droppings, etc. Then we arrived, a little after two thirty p.m. at the ~~W. Fork~~^{East} of Sheep's Creek. Stopped there to watch which Mr. Miller found. a Calliope Hummer's nest. Came back down the trail & then swung around North West until we reached the dam at Sheep's Creek. Here, we watched some Water Ducks. Turned and came down the trail to the beach above camp. Watched and listened to several species both on the trail and on the beach above camp. Came back straight down the canyon side, arriving at camp at about 5:20. Set traps after dinner.

Seen on this trip:

1. Calliope Hummingbird (1)
2. Water Duck (2)
3. Mountain Chickadee
4. Hermit Warbler
5. Sparrow Hawk (2)
6. Ash-throated Flycatcher (3)
7. Red-shafted Flicker
8. Western Robin
9. Steller Jay
10. Pinyon Nuthatch
11. Western Tanager.
- 12.

M. Redon, 1942

Journal

Cedar Grove, S. Fork Kings R., 4,600 ft., Fresno Co., Calif.

May 22, 1942

Arose at five thirty and investigated our trap-lines. We had set 25 traps ^{on the} ~~on the~~ East side of the S. Fork of Kings R. Several traps which had been set near the water's edge were empty. I was surprised to see empty, one which had been set near a fallen log; for as I had set the trap I saw something scurry away, possibly a Microtus sp., however, we picked up the traps. Three contained animals, all Peromyscus sp.? Hesperomys 2 ♀ and 1 ♂. One ♀ had been attacked by ants and so we did not skin it. Investigated the robin's nest which Mrs. Muller had ^{been} found on the East side of the Kings River in the mesada region ^{right} ~~at the~~ of the road. The ♀ robin was sitting on the nest. 3 eggs in nest. At about 4:10 we started up to look at the Calliope Hummer's nest and to catch Sceloporus on the way. Spent so much time along the way investigating strange birds, etc. that we reached the Calliope Hummer's nest at 5 o'clock thus having but a few minutes to remain there. We came back then, following the trail & observing several birds along the way. No Sceloporus caught. Several seen, these in sunny places with rocks & often among fallen

M. Redon 1962

Journal

Cedar Grove S. Fork King R., 4600ft, Fresno Co., Calif.

May 23, 1962

logs. Noticed a stream of ants at one place where *Sceloporus* seemed fairly thick. Arrived at camp about a quarter of six. After dinner we set our traps out along the river, East Bank, right-hand side of road (from camp). Species seen:

Brown
Sierra Creeper

Sceloporus

Hermit Warbler

Turkey Vulture

Swifts

Red-shafted Flicker

~~Coast~~ Steller Jay

Western Robin -

Calliope Hummingbird

M. Redox, 1942

Journal

Cedar Grove, S. Fork Kings R., Hescoft. Fresno Co., Calif.

May 23, 1942

Arose at about six o'clock in the morning & investigated the 22 traps which we had set along the East bank of the River. All were empty, one sprung. We sprung the remainder of the traps leaving them so we could ^{set them in} the ~~following~~ evening. Returning to camp with nothing to skin, J. Crowley & I packed ourselves a trail lunch and, equipped with caged noses, field glasses & several cat traps hit the trail at about 8:30. We were at first confused by the number of birds singing, and walked slowly getting good descriptions of birds of which we were not sure. The song of the Calaveras Warbler was a frequently heard one. As we went up the trail, I thought I saw a chipmunk ahead, a few feet beyond the gate ^{on the trail} that leads to the Sheep Creek East Fork where the Calliope Hummer's nest is to be seen. Set a trap at the ~~gate~~ ^{chipmunk} territory & then proceeded on up the trail.

M. Ridon, 1942

Journal

Cedar Grove, S. Jack King River, 4,600 ft. Fresno Co., Calif.

May 23

Somewhat later on up the trail we came to a region of rocky soil, etc. & there I caught a *Sceloporus*. Proceeded on up the trail to the Callipe nest. It was about 10:10, I stopped there & J. Crowley went on up the trail. I stayed & watched the Callipe until about 12 m. Then started up the trail to join J. Crowley for lunch. Walked quite a way without seeing her, so turned back. Caught a *Sceloporus* as I crossed a dugout branch of the Creek and arrived back at Callipe nest at 1:00 p.m. Ate lunch. J. Crowley arrived at 1:20 and ate.

Proceeded downward together and decided to turn down the Service road instead of following the trail down.

Came to a sloped camp^(sentinel), and found ^{as we were} "wandering around in it, what appeared to be the site of a Chipping Sparrow's nest, since the male was singing about here & the female flying about with material in her bill. Watched the tree & hoped we would be able to find it the following day. Saw a Flycatcher of some sort

M. Redon, 1942

Journal

Cedar Grove, 3. Fork Klamath R., 4600 ft., Fresno Co., Calif.

May 23, 1942

Wood Pewee or Ash-throated (?) and got a very good look at a White-headed Wood-pecker. Arrived at camp at about 4:30 p.m. and proceeded to clean up and write a few notes, as well as a look up some of our birds. On arrival at camp, I saw a male Black-headed Grosbeak in an incense cedar right where we were camped. After dinner, went out & reset our traps. Found that several had been gnawed upon during the day and hoped that that indicated better luck this time. No Chipmunk in our trap.

Species seen:

Western Tanager

Chipping Sparrow

Calaveras Warbler

Sawwhet (?)

Steller Jay

Ash-throated

Brown Creeper (w yellow pine) Flycatcher (?)

Chipmunk

Black-headed

Swifts

Grosbeak

Sparrow Hawk

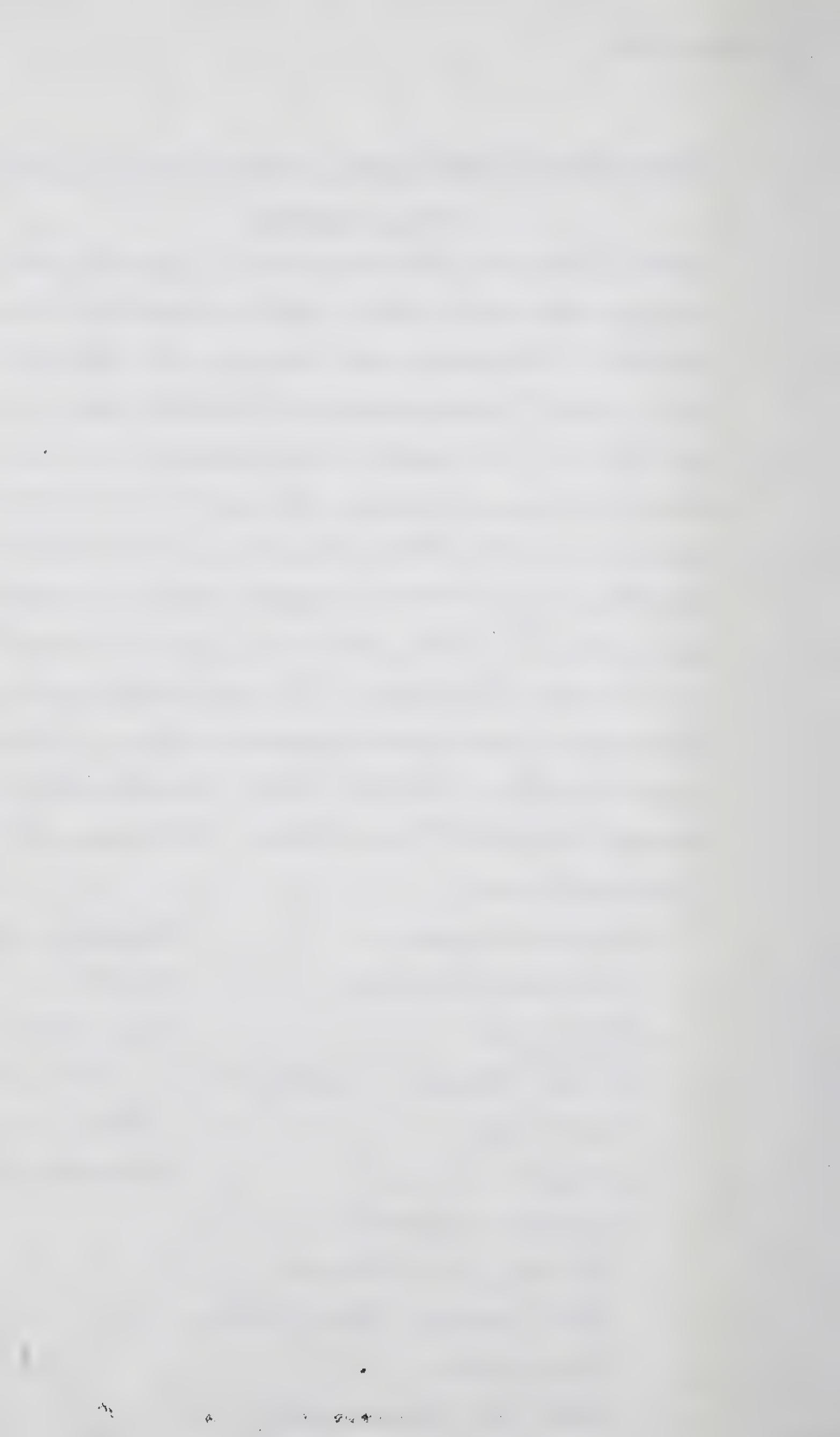
Red-shafted Flicker

White-headed Woodpecker

Trochilus

Colima Hummingbird

Mountain Chickadee



M. Redon, 1962

Journal

Cedar Grove, S. Fork Kings R., 4,600 ft., Fresno Co., Calif.

May 24, 1962

We set out at six-thirty to examine our traps. Of the 22 set, one had been sprung and the bait was gone; the others were intact. On the way across to our trap-line, we saw a Hairy Woodpecker; the Robin was still sitting on her nest. Our traps had again been set southeast of camp, across the bridge. I spent the morning skinning a mouse which Mrs. Grinnell had caught in the tent eating our avocados. This mouse was a ♀ containing 6 embryos.

After lunch, at about 1:10, J. Crowley and I set out Sceloporus hunting. The day was very warm & sunny almost sultry. We walked to the Ranger Station, East of Camp & followed the paved road which leads, eventually to the service road. We arrived at the closed camp (Sentinel?) but were unable to find the tree containing the Chipping Sparrow's nest, which we had marked yesterday. We saw quite a few birds which we attempted to identify with the aid of field glasses. Found a great many Sceloporus about, but the day was warm & they were very active.

M. Ridox, 1942

Journal

Cedar Grove, S. of King's R., 4,600 ft., Fresno Co., Calif.

May 24, 1942

so had difficulty when we tried to catch them. Kept walking up the paved road and finally we got to a Sceloporus paradise; many small rocks & stones; rattling logs; hot sun; and grass & ants globose.

Many small Sceloporus rushing about madly - also large ones which seemed to keep out of sight now. J. Crowley caught seven; I caught two very, very tiny ones. We walked back and reached camp at about 5:55. Did not set traps after dinner; for we (Josephine Crowley & I) are planning to hike up to the Calliope again tomorrow morning -

Species seen and noted:

White-headed Woodpecker

Musæni Chickadee

Chipping Sparrow

Western Tanager

Steller's Jay

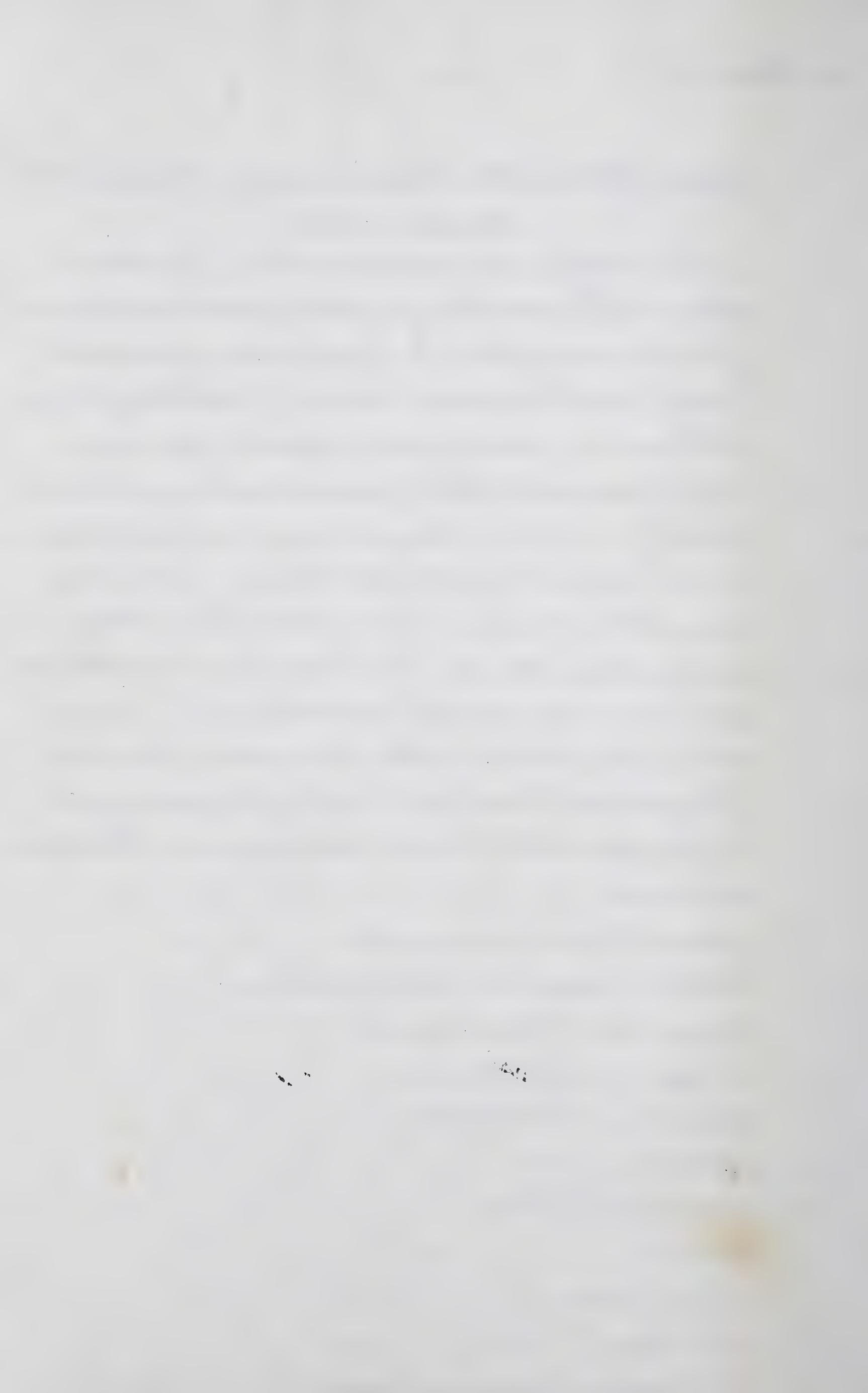
Western Robin

Coyote

Sceloporus

Warbling Vireo (?)

Calaveras Warbler (heard)



M. Redox, 1942

Journal

Cedar Grove, S Fork Kings R, 4,600 ft., Fresno Co., Calif.

May 25, 1942

Got up at about 6:15; had set no traps so got breakfast over at about 6:50 J. Crowley and I left together for the Calliope nest. On the way up, we took the old road to its end & then got on the trail, we heard ^a Tanager, Calaveras Warbler, Swifts, Jays and Chipping Sparrows, not to mention a Robin. We reached the Calliope's nest at 7:35. I remained there, while J. Crowley proceeded on up the trail. Sat and watched the Calliope for 1/2 hrs. Then I was so cold I had to go up into the sun for awhile; tried to catch some lizards of which there were dozens all over, but failed miserably. Came back alone via the trail & the ~~old~~ road. Saw Hermit Warbler & Tanager, 2 males fighting and 1 ♀ (?) sitting by. Also saw a White-headed Wood-pecker, ♂ - Reached camp at about 12 m. Saw Prairie Falcon in camp.

Species
Birds seen in morning:

1. Western Tanager
2. Chipping Sparrow
3. Steller's Jay
4. Calaveras Warbler
5. White-throated Swift
6. White-headed Woodpecker
7. Sceloporus

M. Redox, 1942

Journal

Cedar Grove, S. Fork Kings R., Lee Co., Tex., May 25, 1942

May 25, 1942

8 H. Hermit Warbler 3 H. Western Robin
9 H. Wood Pecker
10 G. Chipmunk
11 ~~H.~~ *Sceloporus* sp.

12 H. Prairie Falcon

May 25, 1942

Left camp a little after 1 p.m. and drove down to the Ranger station. All five girls, F. Ogilvie, J. Crowley, J. Rinck, J. De May who was driving and I were present. We picked up Mr. Nixon and drove up to the Roaring River Falls region. We got out and proceeded about three miles up the trail to the Juniper Meadows. On the way up, Mr. Nixon pointed out to us all sorts of interesting things. We saw ^{marks} tracks of deer pawing, a doe ran by us, we saw the sap of these plants *Artemesia tridentata*; Wood Violets were present; we heard Cassin Vireos, Chipping Sparrow, Jays, Swifts. Caught an Alligator Lizard, a Garter Snake & several *Sceloporus occidentalis* (?) When we arrived at Juniper meadows we heard several varieties of birds; Red-wings, Blackbirds, Humming

M. Redon, 1942

Journal

Cedar Tree, S. Fork Kings R., 4,600 ft. Fresno Co., Calif.

May 25, 1942

birds (after) of some sort & Calaveras Warbler. Traces of some soil could also be heard. We set our traps around the Funeral Meadows. The land is very swampy and abounds in Cat tails, horse-tail & various other types of marsh growth. We divided up, setting our traps throughout the meadows and I was setting mine on the East (?) side along the willows. As we worked thru the water setting traps, we, naturally, put up markers on the willow bushes which leaned over the water. I was somewhat surprised to see a hummingbird (^{Allen?} Anna?) going from red marker to red marker after the fashion of a Hummingbird going from fuchsia to fuschia. I think that here we have some evidence indicating that the Hummer depends a great deal on his sight & color vision for his food. Our traps set at last, we arrived, very wet & sorry looking specimens of humanity, one bleylong & retraced, rather rapidly, the trail

M. Redon, 1942

Journal

Cedar Grove, S. Fork King R., 4600 ft., Fresno Co., Calif.

May 25, 1942

back to the car. We stopped, however, long enough to set 8 rat traps at the entrances to Woodrat nests. We arrived home (camp) at 6:30; rain was falling during the last leg of our trip.

Species seen:

1. Cassin's Vireo

Sugar Pine

2. Townsend Solitaire

Yellow Pine

3. Chipping Sparrow

Miner's Lettuce

4. California Mule deer

Artemisia tridentata

5. Gopher Lizard

Wood Violet

6. Sceloporus sp.

San Flowers

7. Garter Snake

Huckleberries

8. Redwing Blackbird

9. Steller Jay

10. Allen's Hummingbird (?)

11. Finches (?)

12. Calaveras Warbler

13. Flycatcher (?)

M. Redon, 1942

Journal

Cedar Grove, S. Fork Kings R., 4,600 ft. Fresno Co. Calif.

May 26, 1942

Got up at seven-thirty this morning since our traps were set at yester-morrow & we were going back with Mr. Dixon. A visit by a bear had made our night eventful. Mr. Dixon comes up at about eight and decided that we should wait until after nine to see how the weather would turn out. Some time after nine a.m. we six set off leaving Mrs. Kennell at camp. We investigated the eight wood-rat traps set not far from where the car was parked, but nothing had been caught. Two of the traps had been sprung. Proceeding further we heard various species of birds, etc. Arriving at the meadows, we each set to work on our respective trap lines. Mine were set along the edges of the willows, and investigation revealed that of 23 traps set, 3 had been sprung. Nothing was caught. One member of the party found a Solomie Warbler in a trap, and another, a Scrompsan (prob. species leucii), and a

M. Redox, 1942

Journal

Cedar Grove, S. Gold King's R., 4,600 ft. Fresno Co., Calif.

May 26, 1942

Microtus. Mr. Dixon shot down a ~~Pileolated~~ Warbler, and a Wright (?) Flycatcher on the way to the meadows. While there, he collected a Song Sparrow. We sat and ate lunch at 1 o'clock. At 2, we were given an hour to wander at our leisure. Most of the girls crossed the ~~Rushing~~ bridge and chased lizards. I, having no lizard nose, watched birds. I noticed Purple Finches, Wood Peckers, Chipping Sparrow, Western Robins. At three, we all met ~~near~~ near the bridge and set out for the cars. Arrived in camp at almost 4:30, and proceeded to clean up & write some notes.

Species seen:

Black-headed Grosbeak

Cassin Vireo

Steller Jay

Wright Flycatcher

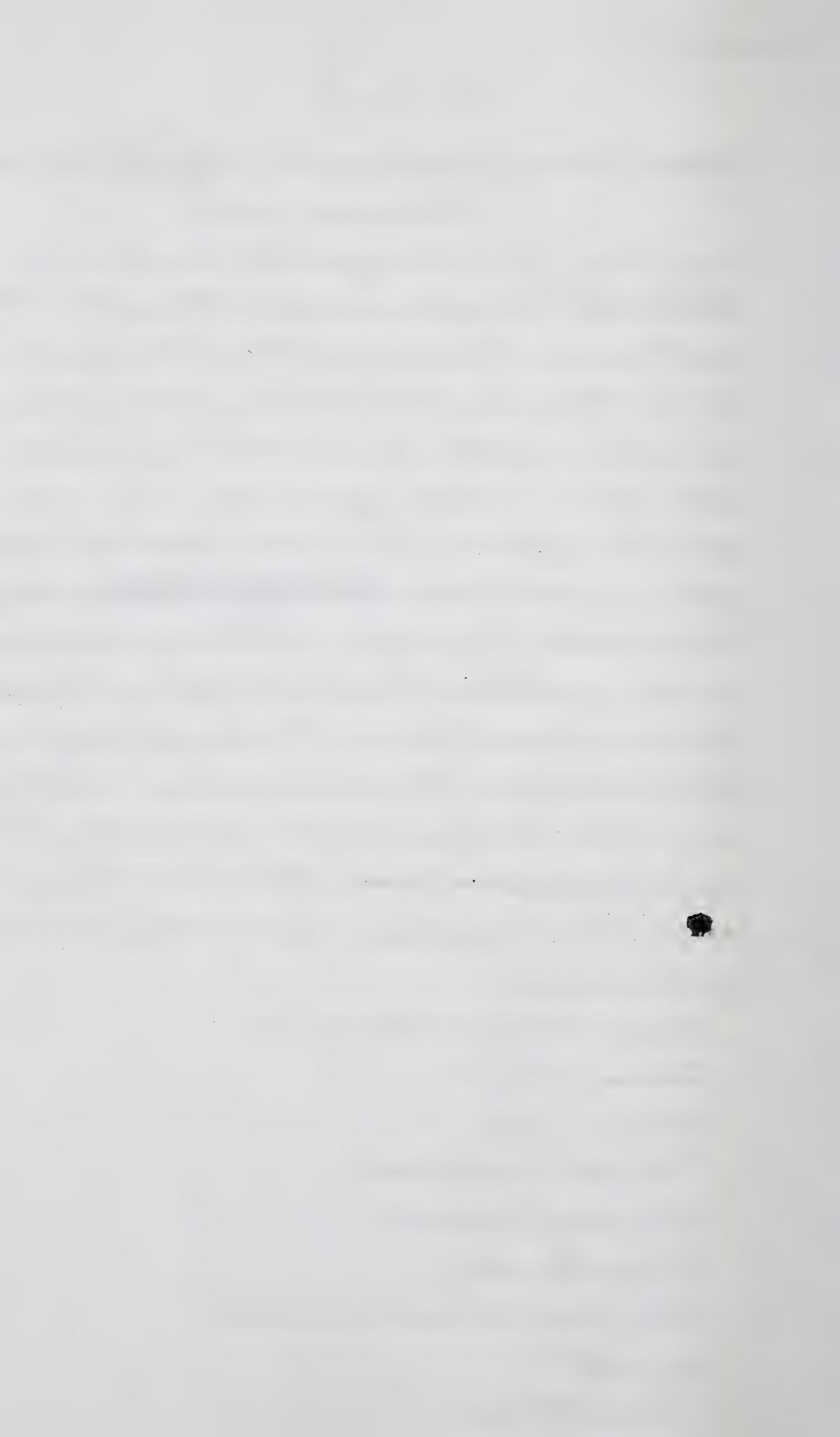
Chipping Sparrow

Oregon Junco

Pileolated Warbler (shot)

Swift

Purple Finch



M. Redon, 1942

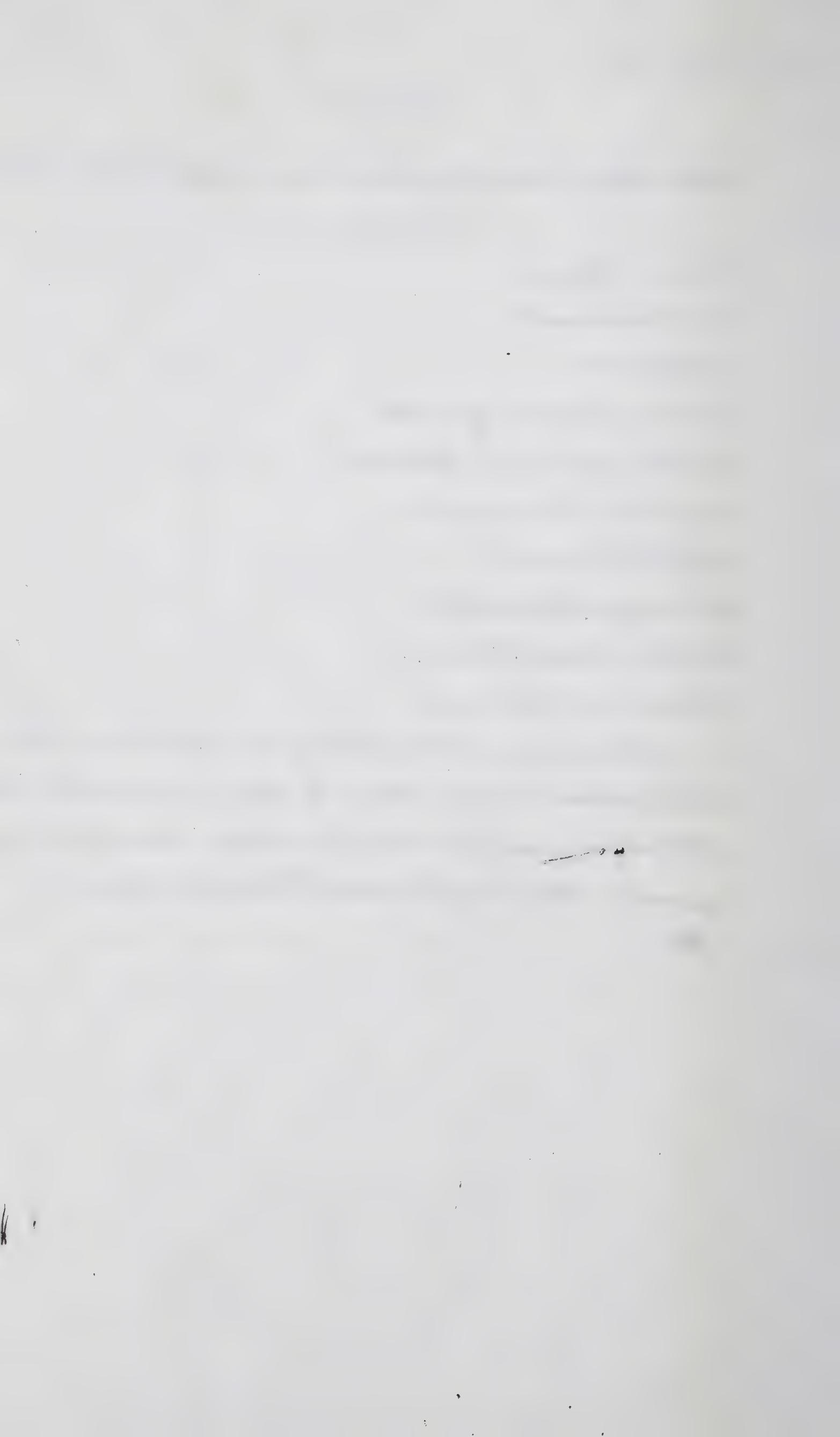
Journal

Cedar Grove, S. Fork King R., Kings Canyon, Fresno Co., Calif. 4,600 ft.

May 26, 1942

Wood Pewee
Mt. Chickadee
Chickaree
Beechey Ground squirrel
White-crowned Sparrow
Western Tanager
~~Brown~~ Creeper
Redwinged Blackbird
White-throated Swift
Western Lark

It was interesting to notice that the marsh land seemed a house insects which attracted swifts which were swooping and diving above the wet land.



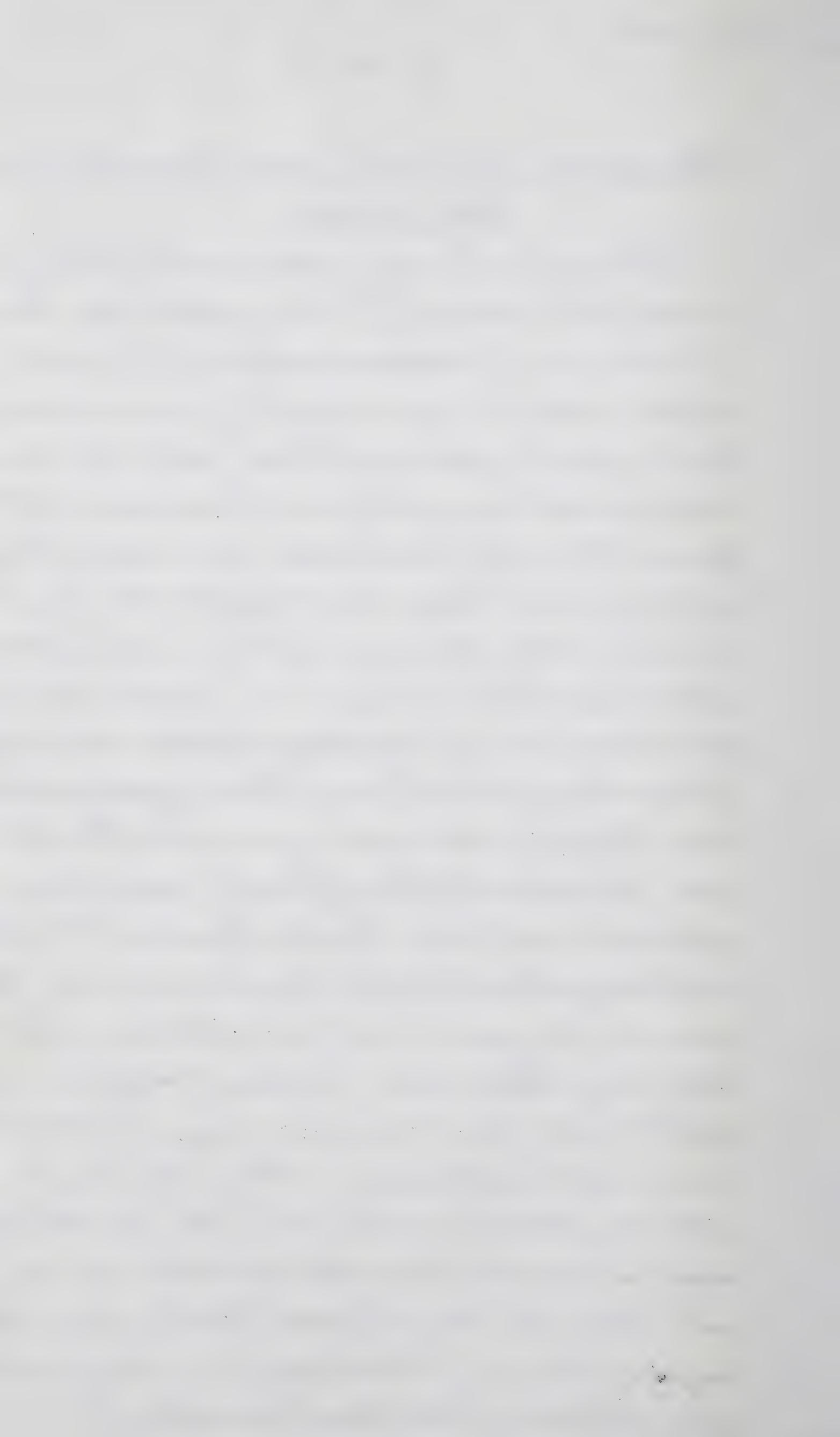
m. Redon, 1942

Journal

Cedar Grove, S. Fork Kings R., 4,600 ft., Fresno Co., Calif.

May 27, 1942

Got up at six a.m. and left for Jun-
wall at ^{thirty} seven a.m. with Mr. Dixon.
The morning was unusually chilly and we
found snow. On our way up to Junwall we
heard several species of birds, mostly the same
that we had heard before. On arriving at
Junwall, we proceeded immediately to
pick up our traps. In my fourth trap I
found a Song Sparrow. It was caught by
the leg & still alive, in good condition.
The remainder of my traps were all empty.
J. Crowley found one *Peromyscus* and
Mr. Dixon shot one female Blackbird,
one Western Flycatcher (?), one Song
sparrow and one Purple Finch. Mr. Dixon
had caught a Garter Snake in his traps
which he gave me in exchange for
the Song Sparrow (to save the Sparrow for
posteriority from my skinning). I caught
one small *Sceloporus* on the way back &
left my jacket along the trail. We arrived at
camp at about 12:30 & after lunch (2 p.m.?)
we (Dixie May & I) went back up in
order to see if I could find my jacket.
She waited in the car while I



M. Redout 1902

Journal

Cedar Grove, S. Fork King R., 4,600 ft., Fresno Co., Calif.

May 27, 1942

followed the trail back just beyond the Roaring River Falls. On the way I caught one Sceloporus which I safely tucked into my bag. I caught another & was surprised to see him turn & snap at me. Investigation showed that he had four ticks in back of his ~~ear~~ left ear & 3 (buried deeper) in back of his right ear. I wanted to get the ticks out without breaking them & so did not put him into the bag. The result was that I lost both lizard & ticks.

Got back to the car at 3:40 p.m. & came straight back to camp.

After dinner Mr. Dixon Dok as known at the Hotel Duck region where J. Crowley & I set 21 traps. On the way down, I stopped & found the Robin still sitting on her nest. We went to the ^{Pack station} horse corral & met a family of people who were temporarily in charge there. Came back to camp at 8:00 p.m. or so and then fixed lizards & wrote notes for a while &

Species seen:

1. Gray squirrel
2. Purple Finch
3. Chipping Sparrow
4. Gopher Squirrel
5. Swift
6. Violet-green Swallow
7. Calaveras Warbler
8. Cassin Vireo
9. Western Tanager
10. Black-headed Grosbeak

M. Ledor 1942

Journal

Cedar Grove S. Tak Kings R. H. Court, Fresno Co., Calif.

May 28, 1942

Arose a little after six. While breakfasting saw doe about 100 yrs. from breakfast table. Went off to ~~set~~ see our trap line. No one had anything but Mr. Dioso. He had caught one Peromyscus. Ida and I returned together & observed a Chickaree which was digging near a stone. He would dig a second hole back up on the stone. This process was repeated several times until he noticed us and scolded. We saw the Robin on her nest still, and scared Water Ducks down by the bridge. Later on Ida showed me the nest of ^{to} under the bridge. Back at camp, we packed trail lunch & proceeded (Jacqueline Crowley, Ida & myself) up the trail, starting at almost 10:10. We went to the Sheep Creek Dam and watched the Water Ducks for a few minutes. Then, we proceeded up the trail to the Calliope nest where I left the others. I spent part of the a.m. hunting around for plants which might serve as hummingbird food but without success. I saw a Golden Eagle up there. Ida & I had lunch. The Indians came up & took a picture of the Calliope. At almost 2 hours left alone & I spent the time until 4:30 watching the bird closely. She was feeding her young then, I discovered.

M. Redon, 1942

Journal

Cedar Grove, S. Fork King R., 4,600 ft. Fresno Co. Calif.

May 28, 1942

Got to camp at 5:45; had dinner with the Livers & then drove home and wrote notes.
Species seen:

Calaveras Warbler

Western Robin

California Mule Deer (and tracks)

Sceloporus

White-headed Woodpecker

Steller Jay

Calliope Hummingbird

Water Ouzel

Western Tanager

Golden Eagle

Wood Pewee

Chickadee

(Hermit Warbler ?)

Oregon Junco

Weather was cold morning & up until noon. After that it was fairly warm, in the sun, but still windy.

M. Dixon, 1942

Journal

Cedar Grove, 4,600 ft., S. Fork Kings R., Fresno Co., Calif.

May 29, 1942

We arose at about 5:35 & J. Crowley & I proceeded immediately to our trapline - near the end of Hotel Creek. We found one Peromyscus (lucyliae ?) which had been caught in a trap set at the edge of a fallen log, about 10 ft. from the foot of the ~~slope~~ slope. Two of our traps had been sprung; the remaining 17 were intact & we left them all, rebaiting those which had been sprung.

We saw a California Mule Deer crossing the road, ^{while} on our way up to our traps. On the way back, we saw Western Tanager, ♂ and ♀ and stopped at the Robin's nest. She was still sitting.

After breakfast, Mr. Dixon came up, and, at about 8 a.m. we left for Lookout Rock, provided with trailblazers. We followed the old trail up, finding that this went up much more directly than the new trail. As we reached the pass, we heard Nuttal Flycatcher, Pileolated Woodpecker and Mr. Quail. Mr. Dixon showed us a Pine Tree from which the ground had picked the more tender shoots, leaving

M. Ridon, 1942

Journal

Cedar Grove, S Fork King R 4,600 ft. Fresno Co. Calif.

lower branches May 29, 1942
its, practically stripped bare. At Summit
Meadow, from which much of the snow
was melted so that it was quite swampy
& marshy, we saw a ^{Red} - breasted
Sapsucker, a small flycatcher sp. ?,
and heard frogs (*Hyla* ?). From
Summit Meadow we trudged up
Lookout Peak which we scaled,
arriving at the top at 12:30 p.m. From
there we saw a Clark Nutcracker, a
strikingly colored brown, black &
white bird.

We returned by means of numerous
dus trails, fighting our way through
snow, shrubbery, and sliding down
slippery pine - needle covered & gravelly
slopes until we reached the new trail.
On the way down, Mr. Givox showed us
some trees which had been marked by
bears, i.e. the bears stood on their hind
feet & gnawed off the bark; he remarked that
the bears seemed to like the Incense
Cedars for this purpose.

M. Redon, 1942

Journal

Cedar Grove, 9,600 ft., S. Fork King R., Fresno Co., Calif.

May 29, 1942

As we arrived higher up, we saw Snow Bushes (?), and at Summit Meadow we saw Lodgepole Pine (indicator species for Boreal forest) and some White wood violets. We also heard a ~~Mountain~~^{Mountain} Flycatcher Woodpecker giving a call which Mr. Dixon says, insists "Who pews you?"

At 3:55 we arrived at the Calliope nest and I stayed while the rest proceeded to camp. At 4:30 I started back to camp. On arrival cleaned up, ate dinner, wrote notes, & prepared for bed.
Species seen:

California Mistletoe

Western Robin

Western Tanager

Peromyscus boylii?

Calaveras Warbler

Oregon Junco

White-throated Swift

Mittell Flycatcher

Hermit Warbler

Brown Creeper

Fox Sparrow

~~Pileatus~~ ~~Mountain~~ Woodpecker

Mr. Chickadee

Ground Squirrel

Mittell Flycatcher

Mountain Quail (heard)

Red-breasted Sapsucker

Nyala (?)

Steller Jay

Black-headed Grosbeak -

(Pair in camp)

Calliope Hummingbird

Clark Nutcracker

M. Redox, 1942

Journal

Cedar Grove, 4 miles S. Fork Kings R., Fresno Co., Calif.

May 30, 1942

Arose fairly late. Weather = chilly, not so cold as May 29 which was freezing in the morning. I crawled & I went & picked up traps which had been left along slope where Hotel Creek joins S. Fork. In scrub - 3 traps sprung.

Fixed up trail lunch & arrived at Calliope nest at about 10:55. Watched Calliope until about 2:30. Caw back down and looked in on Robin. Mother & father flying around clapping desperately b/t nest tree & tree about 20 yds. away. Young = in nest with fairly long down - feathers just clearly visible.

Company for dinner - I did not set traps - intending to leave early in the a.m. to see Calliope.

Species seen:

Mr. Chickadee

Steller Jay

W. Robin

C. Warbler

White Throated Swift

Gray Squirrel

Ground Squirrel

Oregon Junco

Sceloporus gracilis.

M. Redon, 1942

Journal

Cedar Grove, 4,600 ft., S. Fork Kings R. Fresno Co. Calif.

May 31, 1942

We slept late this morning. The other girls ^{had} set traps & went to them in the morning; after breakfast I made my way up to the Calliope nest, stopping on the way up to look at the robins. With the use of the mirror, I saw the three young robins lying in a peculiarly tranquil position . As I stuck my mirror above the nest, the young robin (♂) stuck up his neck and opened his mouth wide. When nothing was given him, his neck fell back limply into its previous position. The ♀ robin was nowhere in sight. The ♂ began flying ^{about} & twittering worriedly at my investigations. I followed the trail to the Calliope nest which I reached at about 10 a.m. Then, I remained at the nest until two p.m.. I returned to camp and stayed there until 4:00 p.m. I returned up the trail & arrived at the Calliope's nest at 4:30. F. Ogilvie, R. Paulson, and J. Russek came up to see the nest. All four of us left together for camp at about 6 o'clock.

M. Redon, 1942

Journal

Cedar Grove, 7,600 ft., S. Folkings R., Fresno Co., Calif.
May 31, 1942

Species seen:

Chipping Sparrow

Western Robin

Calaveras Warbler

Steller Jay

Purple Finch (California?)

Red-shafted Flicker

Sceloporus

California Mule Deer

Chickadee.

Gray Squirrel

June 1, 1942

Up at 7:15. Helped do dishes, etc. Tonie (F. Ogilvie) + R. Coulson left and afterward, 9:50, Mrs. Gunnell + I came up the trail to the Calliope nest. She picked some ferns etc. + then went back down. I stayed at the nest until about 1:30. While there I saw several Chickadees, + some Sceloporus, and I returned to camp at about two. On the way down, on the trail bt. the New Trail + the Water Cugel trail (trail to Sheep Creek Dam), I came across a rattlesnake; my reason for deciding to come back to camp, rather than to go see the Water Cugel.

M. Redon, 1942

Journal

Cedar Grove, 4,600 ft., S. Fork Kings R., Fresno Co., Calif.

June 1, 1942

Stayed in camp until about 4:00 p.m.
and then J. Russick & I went to the bridge
to see if we could find the nest of a Calliope ♀
which Mrs. Gunnell reported having seen
flying around there. The presence of a nest
seemed rather likely chiefly because
of the presence of the bird at that time of
year & ^{because of the fact} that the habitat strongly suggested
that occupied by the bird I have been watching
up the trail near Sheep Creek Falls. There
was water near, oak & alders present etc.
We found nothing, however. We went to
look at the robin's nest. Mother = off nest.
Father nearby on other side of nest tree.
We did not disturb them. In camp at 6:00.
Species seen:

Gray Squirrel

Wood Pecker

Chickadee

Water Ouzel

Western Tanager

Calliope Hummingbird

Purple Finch.

Pacific (?) Rattlesnake

Ground Squirrel

Sceloporus graciosus

Golden Eagle

Calaveras Warbler -

Western Flycatcher (?)

White-throated Swift

M. Redox, 1942

Journal

Cedar Grove, 4,600 ft. S. Fork Kings R., Fresno Co., Calif.

June 2, 1942

Left camp at about 7:35 after having done dishes. Stopped at Robin's nest. Mother on nest & father nearby in ^{Pine (?)} fir (?) tree almost 10 yds. from nest. Came on trail straight up to Calliope nest. Saw numerous Chickadees in rockpile near bridge; saw also ground squirrels rushing across road. On trail started a Chukarice which flushed away chattering excitedly. Also came across a deer which heard me stamping up the trail and bounded gracefully away. ^{Calaveras} Saw Swifts & heard numerous warblers.

Arrived at Calliope nest at about 5 min. of 8 and stayed until about 10:30. At that time H. Fisher & R. Storer came up the trail. We proceeded on up together until we were well beyond the limits of Kings Canyon Nat'l Park & within those of Sequoia Nat'l Park. We proceeded in a leisurely fashion & stopped to watch birds, etc. along the way. H. Fisher shot one Junco (via shotgun) & the two caught several Psaltriparus gracilirostris.

M. Reddon 1942

Journal

Cedar Grove, 4,600 ft. S. Fork Kings R. Fresno Co., Calif.

June 2, 1942

We went down to the dam & ~~saw~~^{saw} Water Ouzel & then cut down the canyon side to arrive in camp at about 4:00 p.m. I stayed in camp while L. De May, R. Storer, H. Fisher & Mrs. Grinnell took the car to explore the roads, and J. Crowley & J. Russell went to watch the Ouzels. The day was overcast although when we got below the Calliope nest, we were quite warm.

Species seen:

Chickadee

Gray Squirrel

Chipmunk

Grouse squirrel

California Mule Deer

White-throated Swift

Wood Pewee

Hammond (or Wright) Flycatcher

Neotropical Flycatcher

White-headed Woodpecker

Hairy Woodpecker

Steller Jay

Wright's Robin
^{Brown}

Trochocercus Creeper

Sceloporus

Pygmy Nuthatch

Mt. Chickadee

Golden Eagle

Pileolated Warbler

Audubon Warbler

Black-throated gray >

Calaveras Warbler

Hermit "

Grouse (heard)

Red-breasted Nuthatch

Violet-green Swallow

Flutat Flycatcher

Sparrow Hawk

Calliope Hummingbird

Water Ouzel

M. Redon, 1942

Journal 6700ft

Gen. Grant Park, Camp Agate, 7 Fresno Co., Calif.

Cedar Grove, S. Fork Kings R., 4,600ft, Fresno Co. California

June 3, 1942

Arose at 6:30 a.m. & went to get our traps which had been set about a mile west of Roaring River among manzanita & sagebrush. Of 20 traps, there were 3 which contained animals. 1 adult male Peromyscus maniculatus under a Manzanita; 1 adult ♀ Peromyscus maniculatus under an Artemesia; she contained 5 embryos which averaged about 10 mm. in length; and one immature Peromyscus maniculatus at the edge of a rotted log. This specimen had a broken skull and so was not put up. We

- packed up & left camp at about 11:00 a.m.
Lunched at Hume Lake

We drove up to Gen. Grant Park Headquarters, stopping for lunch at Hume Lake Campground.

Then we stopped at Park Headquarters long enough to make a few purchases. We then proceeded to Camp Agate. and then stopping there, we went for a walk to the General Grant tree and followed the trail for a mile or so. We came back to camp; had dinner, and sat around the fire writing notes.

M. Redor, 1942

Journal

General Grant Park, Camp Cuyler, ^{6700 ft} Fresno Co., Calif.
~~Cedar Grove, S. Fork Kern R. 4,600 ft. Fresno Co. Calif.~~

June 3 -

Species seen:

(On route from Cedar Grove to Park Rd.)

| | |
|-----------------------|--------------------|
| Western Robin | Western Wallflower |
| Calaveras Warbler | Pensées |
| Ground Squirrel | Psathyrocte |
| Mourning Dove | Blazing Star |
| Wood Pewee | Yerba Santa |
| White-throated Swift | Red Bud |
| Turkey Vulture | Ceanothus |
| Black-headed Grosbeak | Rabbit brush |
| Chipping Sparrow | Mangarita |
| Greenback Goldfinch | Shadblow |
| Nuttall Flycatcher | Wild Cherry |
| Fox Sparrow | |
| Cassin Finch | |
| Western Tanager | |
| Clip munk | |

Species seen:

(Hume Lake Campground)

| |
|-----------------------------|
| Blackheaded Grosbeak (pair) |
| Cowbird (pairs) |
| Brewer Blackbird |
| Wood Pewee |
| Andover Warbler |
| Oregon Junco |
| Western Robin |



M. Redon, 1942

Journal

Gen. Grant Park, Camp Agatea, 6700ft, Fresno Co., Calif.
Cedar Grove, S. Fork Kings R., 4600ft, Fresno Co., Calif.

Jan
January 3, 1942

Species seen:

(Camp Agatea & vicinity)

Townsend Solitaire

Mountain Chickadee

Wood Pewee

Chipping Sparrow

Fox Sparrow - (nest with 3 eggs in snowbush)

Western Robin (nest with 4 eggs - small yellow pine)

Chipmunk

Chickadee

Calif. Mule Deer

Green-tailed Towhee

Gray Squirrel

Hammond or Wright (?) Flycatcher

Red-breasted Nuthatch

M. Redon, 1942

Journal

San Francisco, San Francisco Co., Calif.

June 4, 1942

Arose at 5:00 a.m. and set out immediately for home after cleaning camp. Left Camp Cuyler at 5:30 a.m. Followed Highway 180 until Fresno which we reached at 7:30 a.m. I. De May and J. Crowley were in the former's car. H. Fisher, R. Storer, and J. Russick were in the truck, and Mrs. Grinnell and I were in her car. We all had breakfast in Fresno, and left at 8:00 a.m. J. Crowley and I were in Mrs. Grinnell's car with her going to Berkeley. R. Storer and A. Fisher were in the truck, also going to Berkeley. I. De May & J. Russick were in the former's car going to Santa Barbara & L.A. We took Highway 99 from Fresno & followed it to Modesto, stopping at Merced for a while to freshen up and change. Followed Highway 132 from Modesto to Vernalis & then Highway 33 to Tracy? Highway 50 took us into Walnut Creek where we had lunch. From there we took the Fish Ranch Road to Mrs. Grinnell's home, arriving at about 1:45 p.m. We unloaded the car, showered, and J. Crowley and I took the 3:11 Key System train to San Francisco. I arrived home at about 4:30.

M. Redon, 1942

Journal

San Francisco, San Francisco Co., Calif.

June 4, 1942

Species seen:

Western Robin
Steller Jay
Skunk (smelled)
Wood Pewee
California Jay
California Woodpecker
Raven
Crows
Cottontail
Meadowlark
Shrike
Brewer Blackbird
Cinnet
Cliff Swallows
Brush Rabbit
California Quail
Barn Swallow
English Sparrow
Western Kingbird
Cooper Hawk (?)
Mockingbird
Sparrow Hawk
American Egret
Red-wing Blackbird
Marsh Hawk

M. Redon, 1942

Catalogue

Cedar Grove, S. Fork Kings R., 4600 ft. Fresno Co., Calif.

May 21, 1942

1 ♂ Peromyscus maniculatus 150-64-9-17

May 22, 1942

exchange
coll. 2 ♀ 3 emb. x 11 mm. Peromyscus boylii? 201-95-22-20 32.5 gm.

3 ♂ Peromyscus boylii(?) 192-98-10-20 26.3 gm.

May 23, 1942

4 Sceloporus graciosus (formalin)

5 Sceloporus graciosus (formalin)

May 24, 1942

6 ♀ 6 emb. x 5 mm. Peromyscus maniculatus 155-65-19-15-23.2 gm.

7 Sceloporus graciosus (formalin)

8 Sceloporus graciosus (formalin)

May 27, 1942

9 Sceloporus graciosus (formalin)

10 Sceloporus graciosus (formalin)

11 Garter Snake (formalin)

June 3, 1942

153-63-19-17

12 ♀ 5 emb. x 10 mm. Peromyscus maniculatus 22.9 gm.

M. Redon, 1962

Sceloporus graciosus?

Trail W E. Fork Sheep Creek, Knob Canyon, Fresno Co., Calif.

May 23, 1962

4 - One *Sceloporus* caught along trail side in a gravelly, rocky, sunny region overrun with ants & with rotting brush on the ground. It was caught about 1 ft. from the brush; 3 ft. from the trail nr. cattle guard.

5 - *Sceloporus graciosus* - Caught along trail above Sheep Creek Falls. Region 3 granite rock. No trees for about 15 ft. Caught about 2 ft. from this stream trickole.

May 24, 1962

7 - *Sceloporus graciosus* - Young lizard caught in patch of rocky land near paved road → Sentinel Camp & old dirt road. Region - Sunny much granite rock & a few rotting logs, sloping off from road. Somehow, a whole host of small gnats kept arising like a steam from one rotting log. This seemed to support a ~~whole~~ host of *Sceloporus*, young and old. However, the young were easier to catch.

8. - *Sceloporus graciosus* young lizard
See account under #7 above.

M. Redon, 1942

Sceloporus graciosus?

Roaring R. Falls, m. Cedar Grove, Big Canyon, Fresno Co., Calif.

May 27, 1942

#9 - Small, young caught near rock in glade
young scurry about, but keep moving out
from shelter and into sight so that if you
keep after them, they are more easily caught
than the old ones.

#10 - Caught in house, near Roaring R.
Falls. Rocky, sunny, region with some
mangnites.

M. Redox, 1942

Peromyscus maniculatus

Cedar Grove, S. Fork Kings R., 4600 ft., Fresno Co., Calif.

May 21, 1942

1 ♂ Peromyscus maniculatus 150-64-9-17

Set 14 traps - caught 1 Peromyscus ♂.

Trap set under manzanita bush nr. bridge at Cedar Grove Camp. Bush was in open space, no trees or brush closer than 30 ft. Very little grass in surrounding open area; gravelly soil; within 25 ft. of paved road. Manzanita covered space about 8 ft. in diameter. Some dead branches on west side of bush; animal caught in trap on N.E. edge, lat. 2 Callicebus bechleyi digging.

May 24, 1942
6 emb. x 5 mm.

6 ♀ Peromyscus maniculatus 155-65-19-15 23.2 gm.

Caught in camp - in Mrs. Grinnell's tent, had been feeding on avocado in a basket. Caught at about 11:00 p.m.

June 3, 1942

1 mi. w. Roaring R. Falls, Kings Canyon, Fresno Co., Calif.

12 ♀ 5 emb. x 10 mm. Peromyscus maniculatus

153-63-19-17-22.9 gm.

Caught under an artemesia bush. Whole region of Artemesia & manzanita - sandy soil.

1 ♂ caught in same region under a manzanita. Put up by J. Crowley.

1 immature with skull broken - not put up.

M. Pedon, 1942

Peromyscus boylii?

East of bridge, N. Cedar Grove, ^{Stark} King R., 4600 ft., Fresno Co., Calif.

May 27, 1942

2 - ♀ 3 emb x 11 mm. Peromyscus boylii? 201-95-22-20 32.5 gm.

3 ♂ Peromyscus boylii? 192-98-10-20 26.3 gm.

Set 25 traps in region across bridge to left of road; caught 3 Peromyscus boylii?; 2 ♀'s, 1 ♂. One female, containing 3 embryos, was caught along the east shore of the creek flowing into the S. Fork of the R. ns bridge. The trap had been set at the bottom of a large granite boulder, just at a crevice. The second ♀, which was not preserved because it had been attacked by ants, was caught in a trap set at the foot of a rotting stump. The ground around was covered with dry pine needles. The ♂ was caught under a log with brush litter and decaying wood around it.

M. Redon, 1942

Calliope Hummingbird

May 21, 1942 - Sheep's Creek, Kings River Canyon, Fresno Co., Calif.

♀ flying around in circles keeping pretty much in same region. Dark streaks on throat; green back. First seen flying into a Golden Oak & between this and a White Fir. Always on the move, resting for a moment on branch & then on her way. Suspected well because of constant activity of hovering constantly around the oak. Tree set down from trail & about 15 feet ^{up} from the tree, sat in fork of ordinary branch about a foot from the edge of the branch & about 3 ft. from main trunk, we saw a nest. Although she hovered constantly about it, she did not go very near at first, merely flying erratically about, then stopping a sec in the air & then lighting for a second on a tip of a branch & again on her way. Finally, she ^{near}, after Dr. Miller had sighted the nest, went & seemed to look into it. Then she grew more confident ~~and~~ & landed & sat a few moments in it, facing us both times. When ^{someone} came toward the nest she would first fly from the tree to a Douglas fir about 10 feet back on the same side of the trail & then into one directly opposite the tree in which the nest was contained. She would then, when someone approached nest directly, fly around region of nest and as soon as intruder leaves take a circuitous course back to the nest & this contained

Calliope Hummingbird

May 21, 1942 - Sheep Creek, Kings Canyon Nat'l Forest, Fresno Co., Calif.

2 eggs ^{suspected} laid into nest after reaching branch where nest located, and zigzagging first to one side and then to the other, working away from the trevally center ^{under the branch}. Finally she would circle under the limb & enter the nest. In getting into nest she would come under it & then seem to step over the side & neatly settle in it.

Twice I thought she stepped onto the side & then onto the cup, resting just a fraction of a second at the edge of it. Nest situated in such a way as to be protected from view by a screen of leaves, and yet the bird sitting on it could look around her. Any movement down the path would send her from the nest. She stayed away only until she thought danger fairly clear & if we stood around long enough, after several false moves in the direction of the nest & then circuitous flight away, she would eventually take her zigzag path to the nest. After we had disturbed her at first, she was still a little cautious & would usually stop a second at the edge of a twig about 2 feet below the nest and a foot or so long. This was a bare twig & she was very conspicuous sitting on it. However, although while there were people around she would stay on the nest only a few seconds at a time, when no

Calliope Hummingbird

May 21, 1942 - Sheep's Creek, Kings R. Canyon, Fresno Co., Calif.
one ^{else} was around, she would stay there pretty
consistently. Usually an involuntary movement
on my part in chasing flies away sent her
from the nest after perhaps a minute or two.

After everyone ^{else} was gone, I counted 8⁹ minute as the
length of one stay in the nest. She flew to the Douglas
fir in back of her - could not see her after that and
returned in about 3/4 min. stopping a moment on
the small branch previously mentioned and after
a stop just under the branch, a quick turn over
under & over into the nest. Time in nest = 3 min.
Someone's approach frightened her this time. Her return
was observed after a great deal of zigzagging
& circling. It was remarked that regardless
of the side from which the nest was approached
she always entered it from the same ~~way~~ side;
that away from the path. This time after her stop
on the branch below, she went away to the
other side of the branch & this time, approached
from the other direction (thus not completing her
swing under & over ^{the bird} to the other side of the nest).
We changed position from one side of the
nest to the other & on her return to the nest, she
faced ~~in the~~ ^{opposite} direction ~~this time~~ ^{to the other side} i.e. faced us.

Then, one of us moved and after a little, she
entered the nest & faced the direction of the one
by whom she had last been frightened i.e.

Calliope Hummingbird

E. fork

May 21, 1942, Sheep's Creek, King R. Canyon, Fresno Co., Calif.

We could see that each movement or sound from one of us would cause her to move her head slightly, although she did not constantly move her head from side to side. Indeed, such movement was a scarcely perceptible jerk of the head. She was frightened off again & then she returned, perching again on the little branch below the nest, & then flying in again with 2 zig-zags. No other bird in sight at all. Nest seemed protected from sun with over-hanging leaves. Moving notebook back & forth yielded side to side head movement. Also with movement up & down = slight jerk. Off = 32 seconds. On = 30 sec. Then off. Seen in tail, sparsely leafed ^{edge} ~~edge~~ behind the ~~tree~~ in which nest situated & cleaned her bill & preened. Then back to nest, facing us still. Noise from down path → off nest. Then people came down; she flew back on, watching them, head turned with eye on them. They moved up trail & again she left nest; then she came back, again with head turned & right eye on them; a movement on us part now led to slight head movement. They were out of sight, then a movement by us yielded no movement on her part; her attention was apparently on us now.

May 22, 1942

ca. 5 p.m.

Sitting on nest. Watched for about 5 min. ^{the} Did not move.

M. Ledor, 1942

5

Calliope Hummingbird

Cedar Grove, S. Fork Kings R., Fresno Co., Calif., 4,600 ft.

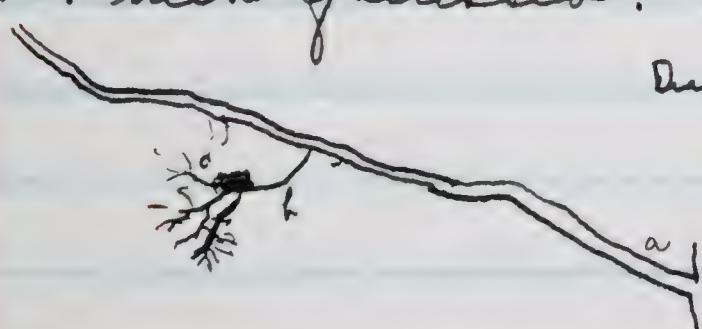
May 23, 1942

Arrived at 10:10 to the ~~sight~~^{site} of the hummer's nest. It was impossible to approach without disturbing her. She returned to the nest ~~without~~ in about 5 min., after first flying in a swift circle around the nest tree and then going to the ~~oak~~ ^{alder} ~~large oak~~ in back of the nest. There, she perched on a branch about 25 ft from the water, sitting about four feet from trunk of tree & wiped her bill by drawing it along the branch and fluttered her wings a few times. Then, she flew to the tree ^(15. 17 m. tree x dia.) ~~another~~ ^{one} ~~oak~~, this one with leaves just coming out, and sat _{4 ft from tril on slopes} on a branch about 4 ft from the ground for a second. She flew to the nest tree, finally, first zigzagging under the branch which holds the nest several times & then flying around the tree, and then back to the vicinity of the nest, a few more zigzags & finally into the nest. This time she appeared to fly in, fluttering her wings as she settled there. She sat facing me, i.e. East. I timed her stay as eight min. J. Rossack came up then, and the hummer flew away. Stayed for a few seconds, circling the tree, then settled on a branch in the ^{alder} ~~oak~~ behind her, this time at about the level of the nest, about 35 or 40 ft. above the water & again fluttered her wings, perched with one foot, zigzagged under the limb & entered (stepped) into the nest. A second or so later she flew off & returned immediately.

Calliope Hummingbird
E. Fork Sheep Creek, King Canyon, 5,500 ft., Fresno Co., Calif.
Cedar Grove, S. Fork King R., 4,600 ft., Fresno Co., Calif.

May 23, 1942

This time she faced J. Russick who had moved on up the trail. A second or so later she left the nest, flew under the branch & entered the nest, always from the same side. After about 2 min. J. Russick stood up; the hummingbird left and about a minute later was again in the nest. J. Russick moved closer to me; hummer sat with head turned & beak pointing sort of between us, apparently watching us both. Sun now striking nest & hitting bird's breast; neck & head in shade. Hummer sits 8 min. moves, possibly because of a too noisy gesture on my part toward my field glasses. Returns after about 1½ min., this time without zigzagging & not stepping directly into nest from the same side as usual. Sits fairly erect in nest with entire head visible. Beak held often at slight angle ^{bird} from the horizontal sun now no longer hitting nest. Can be seen to jerk head very slightly with a sudden movement, & quite noticeably after a sudden move apparently from the one of two persons on whom her attention had not been focused.



Drawing indicating nest location -

a) main branch about 15 feet from ground
 tree = on slope + nest = actually about
 1 ft. from path edge.

b) Secondary branch - here glances one can
 see that nest = set out, with some fiber
 holding it down. Nest = 3 feet
 from branch = 2 ½ ft. from end

Ridox, 1942

Calliope Hummingbird

E. Fork Sheep Creek, Kipp Canyon, 5500 ft., Fresno Co., Calif.
Cedar Grove, S Fork, Kipp P., 4600 ft., Fresno Co., Calif.

May 23, 1942

Saw to remain 12 minutes on nest, hardly stirring. Few head movements only indications of movement. Hurried to see where she went, but returned in about a minute, this time going directly to nest without zigzagging and facing south. Apparently, this time she left without being frightened and although we were within her line of vision, she did not set herself specifically to watch us; nor did she hesitate in approaching nest as she does when she has been frightened off. Stayed on nest 5 minutes. Flew N, & in circle; perched in oak a few limbs (4 ft) above nest, down before nest & into nest from usual side, directly, no other zigzag - returned 1½ min. Noticed once when I arose, first slow, careful forward movements did not alarm her, but movements upward, which brought me near the nest resulted in her flight. Left once for about 2 minutes (result of my arm movement?) & saw in oak to the N.W. cleaning her bill on her body and on ~~the~~ the branch.

Return & this time included a little hesitation in getting to the branch but once there, she stepped directly into the nest, not actively fluttering her wings this time, but merely adjusting them as she stepped.

Every single move on my part resulted in a little jerk of the head on hers.

Redon, 1942

Calliope Hummingbird

E. Fork Sheep Creek, King Canyon, 5500 ft. Fresno Co., Calif.
Cedar Grove, S. Fork King C., 4,600 ft. Fresno Co., Calif.

May 23, 1942

Changed position to the South East side of tree since I was growing very, very cold. Hummer flew away & came back shortly, with one zigzag under the branch, sat facing the N east, one eye turned on me.

From this side, the nest is best ~~disguised~~^{concealed} by a screen of leaves which do not actually hide the nest, but rather serve to disguise it. The bird's gray throat blends beautifully with the grey nest & the mucky structure of the nest, as well as its inconspicuous grey color make it blend with the leaves.

yesterday, when I came up here, I walked right past the nest & each time one looks for it it is necessary to get one's bearings and start from the trunk before being able to find it. at 11:25 the sun had shifted so as to be concentrated directly upon the nest. Sat on nest for nearly a half-hour. Unfortunately, I was not watching at the beginning of this period & do not know exactly how long she ~~had been~~^{had been} there (11:15-11:45) Sun shining fully on nest & mother back in a few minutes about 1½ minutes).



Redon, 1942

Calliope Hummingbird

Bird

E. Fork Sheep Creek, 5500 ft., Fresno County, Calif.

May 25, 1942

Arrived at Calliope nest at 7:35. Bird sitting on nest and apparently undisturbed by our approach. Eggs are obviously not hatched or she would not sit still so long. She is now creeping over toward the nest. I wonder if she will feel free to leave if the sun comes into the nest. It is fairly cold this morning and she shows no desire as yet to move. Cannot help but contrast her appearance & her nest with that of the Robin. The latter's nest is much shallower than the Calliope's, speaking relatively, of course. The robin's head ^{does} not project ~~as~~ as far from the nest as the hummer's & ~~the~~ has been seen to keep their heads at about a 30° [?] angle with the horizontal. The bird remained on her nest until 7:50, about 15 minutes & then flew off for about a minute. Her return was made with a stop on a limb on the East side of the tree, about 4 feet below the nest. She sat on the limb for several seconds, at the extreme tip and would her back to me. She straightened her wings a little, and then swooped directly around, under

Redox, 1942

10
11

Callicore Hemimelaena

Kings Canyon

E. Fork, Sheep Creek, ft., Fresno County, Calif.

May 25, 1942

The branch which holds the nest, & the west side of the nest and stopped in as was her custom, her wings still fluttering, her feet just touching the edge.^{or the limb.} She wiggled her tail which stuck up from the side of the nest this time (had not noticed this before) several times as she settled down. Stayed on nest about 9 min. I was writing where she left and so did not see her direction of flight. I shall try to find where she goes upon leaving the nest, probably for food, but where?

Remained away about 3 min.

Took a few more precautions about entering nest because I moved while she was off the nest; in fact, I suspect that my moving kept her off the nest longer than she might normally have stayed. She faced me on her return. It is very obvious that she watches every move I make; while she was gone I climbed a little way up the slope on the opposite side of the nest trail to see if I could see into the nest. I decided that I could not & she came back, so I slithered carefully down as not to disturb her.

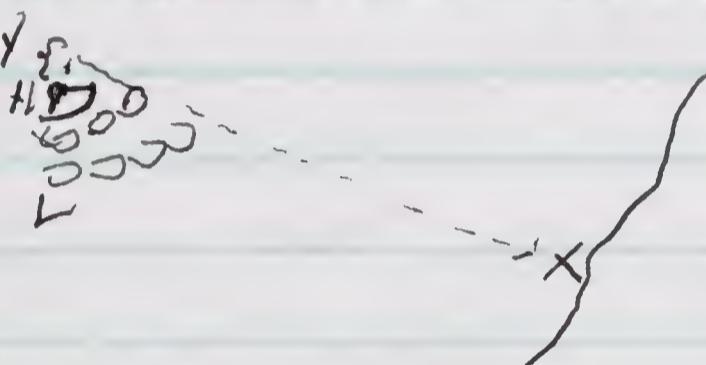
Redon, 1942

Calliope Hummingbird

E. Fork Sheep Creek, Kings Canyon, - Jr. Fresno Co., Calif.

May 25, 1942

I figured that if I stood, she would give the impression of an approach to the nest, so I remained crouching. As I got down to the point where I was too low for her to see me above the screen of leaves



She definitely stretched her neck so as to be able to see. Reference to the diagram may clarify our respective positions. If L represents the leaves & H the hummer with X the sliding door on the slope, she would not be able to see me at point X without stretching her neck the distance H Y so as to make her line of vision X Y.

Stayed on her nest for about 15 min. Saw her fly East; stay away for about $1\frac{1}{2}$ min, returned to nest from S.E. and after a few zig-zags, perched on nest edge & preened, running her bill thru the feathers of her breast; then she stripped out the nest & sat. Still unable to determine

M. Redou

Calliope Hummingbird

E. Fork Sheep Creek, Kings Canyon, ⁵⁵⁰⁰ f.t., Fresno Co., Calif.
May 25, 1942

where she went. Sat with her eye on me (I was sitting ~~about~~ a little N of the East of South of the nest) & her beak pointing a little East of where I was sitting. She stayed on the nest about 6 min. ~~flew~~, hovered over nest a moment and flew S.E. and then made an arc which took her Northward. Returned from N.W. & sat immediately on her nest, always exterring from same direction. Was away roughly 2 min. Curiously enough, when she sat down this time, she began to move her head back & forth from about S. W. S. E., her beak at about a 60° angle with the horizontal. She kept this up, moving her head about once every 2 seconds, for almost a minute & then stopped & sat quietly once more. Was she watching for some food, or did she see some sign of danger? Sat on nest about 8 min. Left while I was writing reappeared few min. later to the ~~other~~ NW. Sat about 10 feet up from nest in other tree (?) and then moved to limb about 10 feet above 2 feet above nest. Sat for a second looking around with side to

Ridon, 4942

Calliope Hummingbird

East Fork Sheep Creek, King Canyon, - Fresno Co., Calif.

May 25, 1942

side nest moreover & then flew directly away ^{Away all together, about 4 min.} to nest. Entered ^{usual} ~~same~~ side. Facing alittle W. S. eye still on me. Jerkiness of hand - writing is due to the fact that it is very cold sitting here on un-warmed rocks so I have been for over an hour. My hands, in spite of warm woolen mittens are almost ~~yellow~~ frozen, otherwise all goes well. To date there has been no sign of a male. Female has not uttered a sound within my know ledge - Sat on nest about 12 min. Flew off a little W of Sarah & came in W. N. north after about 2 min. landed on buckbrush about $1\frac{1}{2}$ ft. ^N west of nest for a moment, fluttering wings, landed on shrub about ^{about} $\frac{1}{2}$ foot below that for a second & looked around then sat in nest. Sat for a $\frac{1}{2}$ min or so picking head pretty reg. from S. W. D. W. back square up at about 50° angle, not as high as last time. Perching before landing usually on bare limb or bare end of limb.

D.F. 14

Redox, 1942

Calliope Hummingbird

E. Fork Sheep Creek, King Canyon, - Ft. Fresno Co., Calif.

May 25, 1942

Stayed on nest about 5 min. & then flew straight toward me (a few degrees E. of S.) and swerved Eastward just then. Away a total of about 3 min. or so. When on nest, again began to look from side to side with fairly even jinks, beak at angle of about 60° with horizontal. 9:07 = sun no longer directly on nest, leaves forming sort of screen. Right side to side movement up for at about ~~few~~ 30 sec. I thought she might be watching for insects; if so, why does she stop after a few seconds only & not sit still? Left at 9:05 for a few minutes to start my surveillance flying again - afraid I would become concealed other spot.

It must be observed that the times given on or off the nest are only approximate. I had no stopwatch & was using the minute hand of a wristwatch. Times obtained were:
on nest -

$$7:35 - 7:50 = 15$$

$$8:42 - 8:54 = 12$$

$$7:51 - 8:00 = 9$$

$$8:56 - 9:05 = 5$$

$$8:03 - 8:20 = 17$$

$$8:22 - 8:28 = 6$$

$$8:20 - 8:38 = 8$$

15

m. Dixon, 1942

Calliope Hummingbird

C. Fork Sheep Creek, King Canyon, ft. Fresno Co., Calif.

May 25, 1942

Away from nest: (very rough figures)

$$7:50 - 7:51 = 1 \qquad 8:38 - 8:42 = 4$$

$$8:00 - 8:03 = 3 \qquad 8:54 - 8:56 = 2$$

$$8:20 - 8:22 = 2 \qquad 9:01 - 9:04 = 3$$

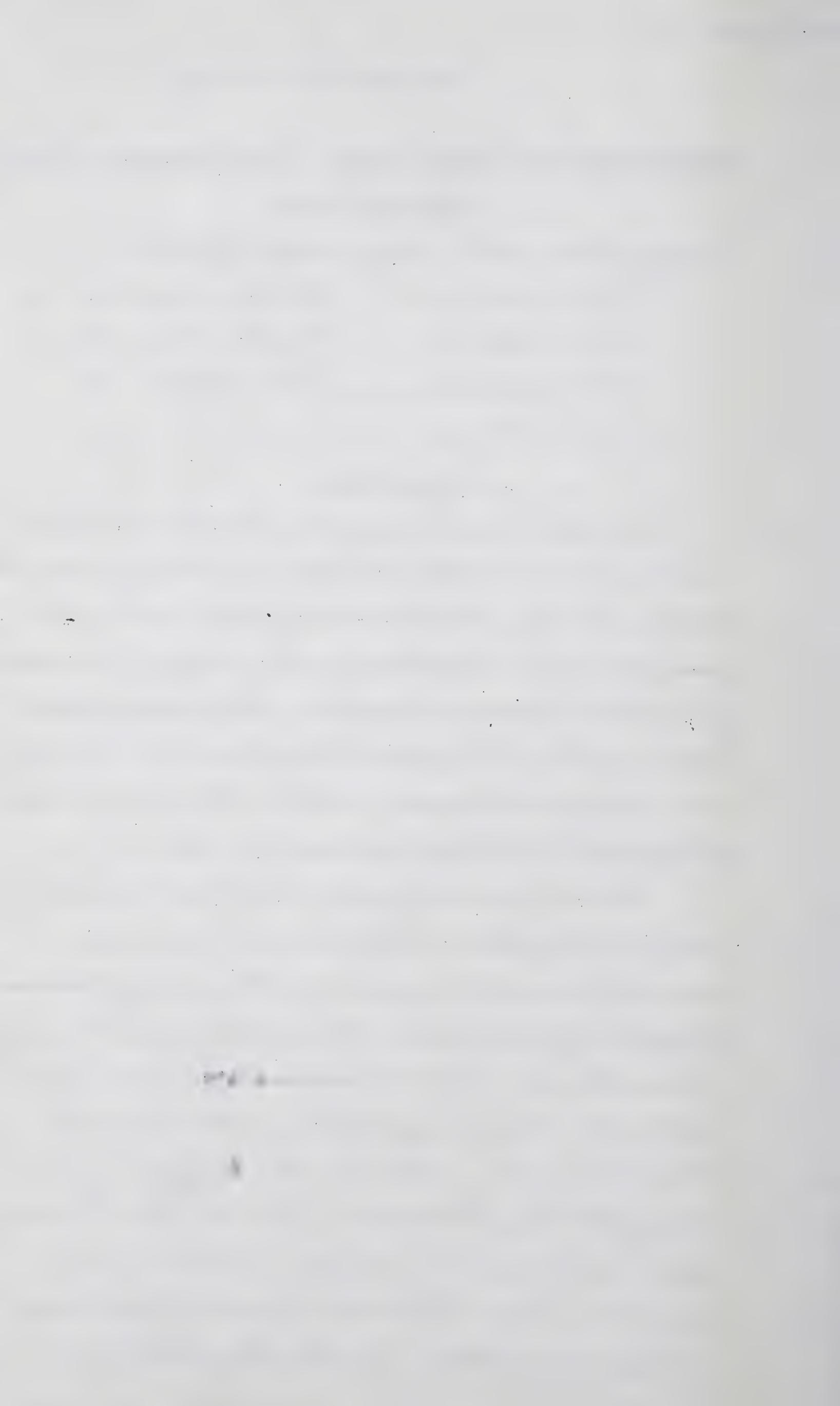
$$8:28 - 8:30 = 2$$

May 28, 1942

Arrived at region of nest at 10:57. Bird off nest as we arrived & because of our presence, hesitated a little about coming onto nest. She finally came back onto nest, stayed, however, for but a second & started fluttering about again. I did not watch her for awhile since I was busy with some notes. Decided to search for a possible feeding ground for her.

Wandered around quite a bit and could find no definite place which ~~was~~ had enough flowers to suggest a set feeding ground. Flycatcher's presence in vicinity suggests presence of insects (?). Saw a Golden Eagle overhead, but was not immediately near nest & thus could not see the effect, if any, on the Hummer. At 11:30, Ida & May came back down and we ate lunch.

The Dixons came ^{up} & Mr. Dixon took pictures of the Hummer & nest. Shortly after two p.m.



m. Redon, 1942

16

Callopte Hummingbird

E. Fork Sheep Creek, Kings Canyon, Fresno Co., Calif.

May 28, 1942

The Hummingbird sat quietly on the nest for ten or fifteen minutes. Cross when I got up to get out of the sun somewhat. Was gone for a minute or so and, upon her return, perched on the edge of the nest, same side as that on which she always gets in, & stuck her long beak down into the nest. What the significance of the gesture was, I do not know. After a few seconds of this she settled back onto the nest. The appearance of a bird near the nest, 2:30, caused the Hummer to fly out & chase him away. This was a matter of only a second and not a sound was uttered by either bird. I was not able to see the intruder so quickly with the naked eye. ^(Not a hummingbird-warbler size) The Hummer flew immediately back into her nest, & settled down again. She did not circuse a single the nest several times before entering into it as is her habit when we are the ones who intrude upon her. The bird was a fairly small one & not a bird of prey. Possibly a Wren (3). Stayed on nest about ten minutes & then flew off heading NE and then circling till she was headed NW. She was back in a very few seconds, covered sa her head soon

M. Ridox, 1942

17

Calliope Hummingbird

E. Fork Sheep Creek, Ft. Knob Canyon, Fresno Co., Calif.

May 28, 1942

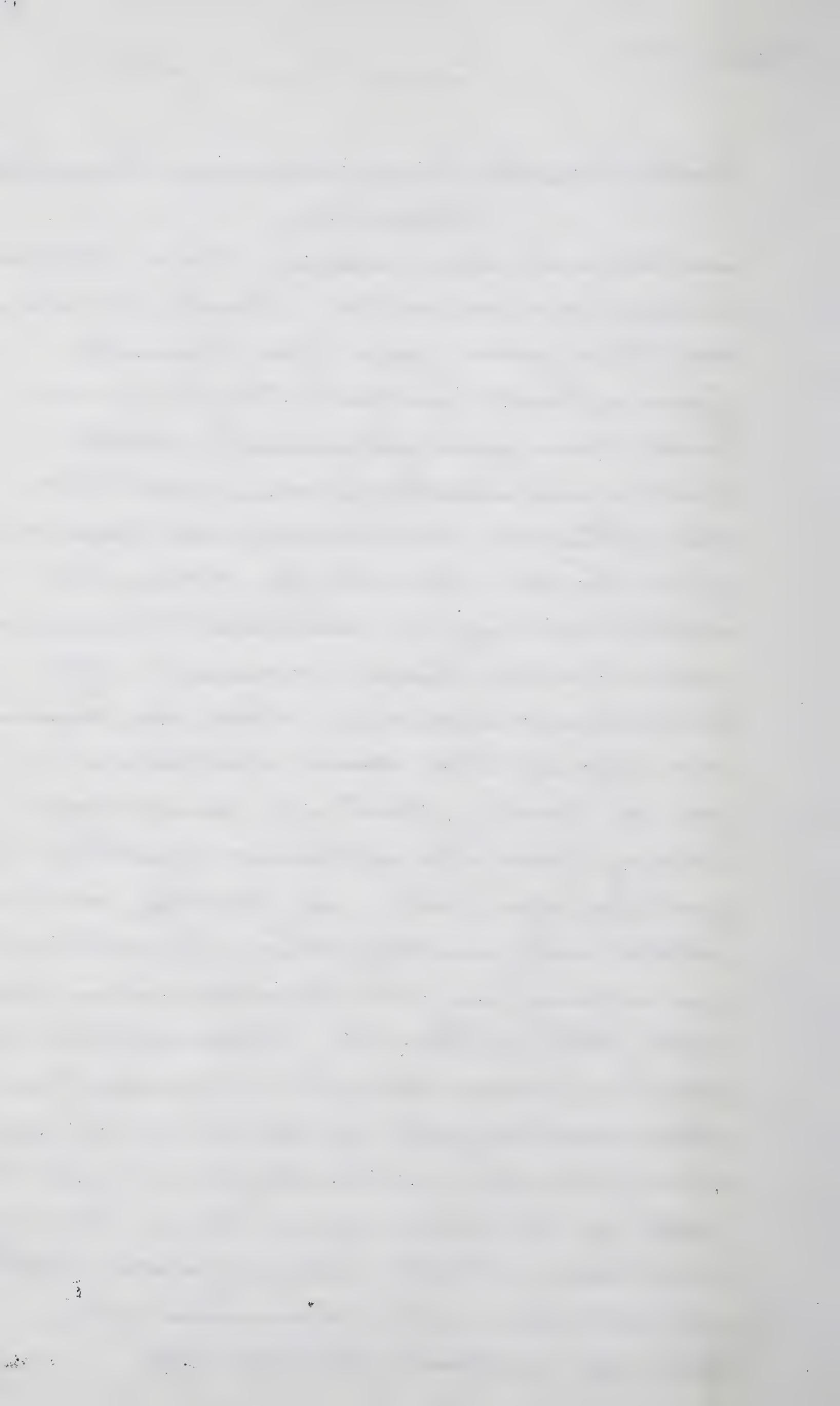
occasionally as she sat in her nest & often, I could see insects going. Was she chasing an insect? Stayed on nest about 6 minutes; left with a short circle around tree & dive straight down & northward. Gone about 6 minutes. Upon return one from north (1st seen N. of nest) flew w limb or oak above & feet down & 2 ft. to the west of the nest. Seen sitting here before. Looks around (sit near edge of limb) & then straight into nest. Seemd as if side to side head movement. Facing me again (I had moved while she was gone) S.E. Stayed on nest eight minutes. Left flying straight toward me and switching direction about 2½ feet away. Could not see where she went ultimately - returned in about 3 min. and, after looking around from same twig as that on which she was perched before; she perched on edge of nest (same side as usual) and seemed again to jib down into nest with her bill. Stayed on nest for four minutes, still facing me; left for about 6 minutes (could see nothing)

M. Leden, 1942

Calliope Hummingbird

E. Lake Sheep Creek, 5500 ft., Kings Canyon, Fresno Co., Calif.May 28, 1942

in the nest) and upon return settled directly down in nest. On for 6 minutes and then gone again for 5 minutes. Again - directly on nest. On for 10 min. and then gone for about a minute. Went again directly to nest and then there followed the side to side movement of the head. On nest for 4 minutes and then - off → South West - constant side to side head movement. Off nest about a minute. Then, she perched on edge of nest and downward jab of beak. Sort of pumping - holding beak straight down and then pulling up. Pulls up finally, and then settles very quickly down. I could still see nothing in nest. Direction varies each time. Flew to the S.W. I missed her return due to an interruption - several times there was a gust of wind & the bird's head moved excitedly from side to side as the branch on which the ~~nest~~ nest was situated swayed back & forth. Stayed on nest 1 minutes & then flew off - possibly disturbed by



M. Redon. 1942

18
19

Calliope Hummingbird

E Fork Sheep Creek, 8,500 ft., Kings Canyon, Fresno Co. Calif.

May 28, 1942

By sound of voices coming down path.
Back in about $\frac{1}{2}$ minute or less.
On for about 6 minutes and people's
voices coming down path & the
Hummer was off the nest again for
about ~~the~~ minute as people passed.
Watched cautiously while she left nest
& then tried to climb up to see if there
was anything in the nest. I could see
nothing there, but as she came up to
feed the birds which I had decided
must ~~be~~ be in the nest. Then, as the
mother came up to her nest, I could
see very faintly what appeared to be the
rounded top of a small head. I went
down to camp immediately and met
J. H. May - who suggested that we might
be able to see within the nest with the
aid of a mirror. We rushed to camp &
found a mirror which we took up with us.
With a little maneuvering, we saw inside
the nest (mother Hummer fluttering about
anxiously). There were 2 tiny blob-beings with
broad orange beaks, quite short, and wide open
mouths. We could find no shell fragments
on the ground.

~~20~~
McRidox, 1942

Calliope Hummingbird

E. Fork Sheep Creek, 5,500 ft., King R. Canyon, Fresno Co., Calif.

feeding

May 28, 1942

2:28 - 2:30 = 2 on

2:30 - 2:40 = 10 off

2:41 - 2:46 = 5 on

2:46 - 2:52 = 6 off

2:52 - 3:00 = 8 on

3:00 - 3:03 = 3 off feeding

3:03 - 3:07 = 4 on

3:07 - 3:13 = 6 off

3:13 - 3:19 = 6 on

3:19 - 3:24 = 5 off

3:24 - 3:34 = 10 on

3:34 - 3:35 = 1 off

3:35 - 3:39 = 4 on

3:39 - 3:40 = 1 off feeding

3:40 - 3:45 = 5 on

3:45 - ? off

(?) 3:52 - 3:59 on

3:59 - 4:00 off

4:00 - 4:01 on

4:01 - 4:02 off

4:02 - ? on

Deserted by people
coming up fast.

feeding?

M. Redon, 1942

21

Calliope Hummingbird
E. Fork Sheep Creek, 5,500 ft., Kings Canyon
Cedar Grove, 4,600 ft., S. Fork Kings R., Fresno Co., Calif.

May 29, 1942

at 3:50^{p.m.} on our way down from Lookout Peak, all six of us stopped in on the Calliope Hummingbird. She flew off at our approach, then, after a few minutes, returned to the nest again. However, we all sat a subsequent movement of one of us, resulted in her leaving the nest again. We all sat down along the trail & she returned to the nest. She sat facing us, the five girls, (S.E) and Mr. Slivon was about 15 ft. up the trail. He arose very quietly & moved a foot or so closer to the nest; she apparently did not notice this; must have been watching us rather than him. They left me alone here at 4:05; she was already off the nest when they left & did not return for five minutes after that. On her return, at about 4:10, she sat idly on the nest, not feeding the nestlings. The quick side to side head movements followed for a few seconds. Then she sat fairly quietly, although occasionally cocking her head to one side, etc.

22

M. Redon, 1942

Calliope Hummingbird

E. Fork Sheep Creek, 5,500 ft Kings Canyon, Fresno Co., Calif.

May 29, 1942

She made no move to feed her nestlings during this time. She sat on the nest for 15 minutes and was gone for 2 min. In her return, she perched on the nest edge and proceeded to jab her beak down into the nest rather gently, and then to give several up and down jabs; sometimes after the last jab, on the upward jerk, she would pull into view a small part of the nestling's beak which was around hers. She alternated from one side to the other (judging from the position of her head as she jabbed into the nest) - going three times to each side. Between each side, she would open and close her beak several times (the tip or rather ^{about} $\frac{3}{4}$ up from the tip looked dark & shiny as though wet) and while she moved her beak up and down, her throat would move up and down. After completing her feeding, she sat down very carefully in the nest, her movements being much slower & more deliberate than they had been before.

M. Redox. 1942

Calliope Hummingbird

E Fork Sheep Creek, 5,500 ft., Knob Canyon, Fresno Co., Calif.May 29, 1942

After this, she sat quietly upon her nest for awhile. I decided to investigate again as to the presence of eggshells under the nest. However, again I saw nothing. The white rock under the nest made this task unusually difficult. During my search under the nest, the anxious mother flew constantly back & forth, to judge from her shadow which swayed from one side to the other ^{accompanying} ~~with~~ whir of wings.

4:10 - 4:25 = on nest

4:25 - 4:27 = off nest - feeding

4:27 - ? (Disturbed here by my searching under the nest for possible eggshells around it.)

May 30, 1942

Arrived at nest at 10:55. Hummingbird not in sight. Climbed on log and held mirror over nest. Nestlings now had a fine gray down, about $\frac{1}{4}$ in. each (?) in length. As I was looking at them, the mother came & naturally was quite worried. She would fly from branch to branch of the nest tree & the elder behind it. She would whiz right past my face with rather frightening

M. Redon, 1942

Collegiate Hummingbird-

E. Fork Sheep Creek, 5,500 ft., Kings Canyon Fresno Co., Calif.

May 30.

speed & directness. I moved several feet further away from the nest - now she hovered about the nest, still not going in. Finally, I withdrew from my dog and then sat to the NE. She came over almost immediately & sat down. After a few seconds upon the nest, she zigzagged about from place to place around the nest tree, stopping in mid-air about 4 ft. from the ground for a full second, then jerking upwards several feet and after a moment, plunging in another direction. Without being far an instant out of my sight, she returned, perched on the edge of the nest, and began her downward ^{feeding} jabs. First to one side - several (about 4) jabs & an upward pull of her beak. Then to the other side - several downward jabs and again the upward pull of the beak; back to the first side with two jabs & to the second with several jabs and then quickly settling down.

Sat down for 1 minute. Few moments later hovered around for awhile. Back in about two minutes. In sight all the time. Sat down for about 3 minutes, then out. Done only about 1 minute. These followed the feeding ^{action} described above. This time

M. Redon, 1942

Calliope Hummingbird -

E. Fork Sheep Creek, 5,500 ft., King Canyon, Fresno Co., Calif.

May 30, 1942

upon her return, she sat on branch, several feet from the nest (below) for a few minutes, looked around and onto nest.

She sat on the nest for a very short time, perhaps a few seconds & disappeared for a short time. Upon her return, she fed her young again, perchingly always on the same side of the nest. The feeding movement involved a long downward jab - then her beak, with a skin, ~~blood~~ - ^{wet} looking red, was pulled back up: She made a jab somewhat to the side of the other (but nestling?) and this jab was accompanied by pumping movements of nostril & slight up & down jerking of the mother's breast. She raised her beak & seemed to swallow. Then, she moved her beak from side to side. Voice became still pointed downward. Finally, she gave a last jab in the same region as her first & sort of settled on to the nest. She seemed to move her breast forward & down, then with a slight jerk to let loose the edge of the nest. She sat on the nest for ~~seven~~ ⁸ minutes, was gone for three minutes. She sat for a few seconds

M. Redon, 1942

Calliope Hummingbird -

E Fork, Sheep Creek, 5,500 ft., Kings Canyon, Fresno Co., Calif.

May 30, 1942

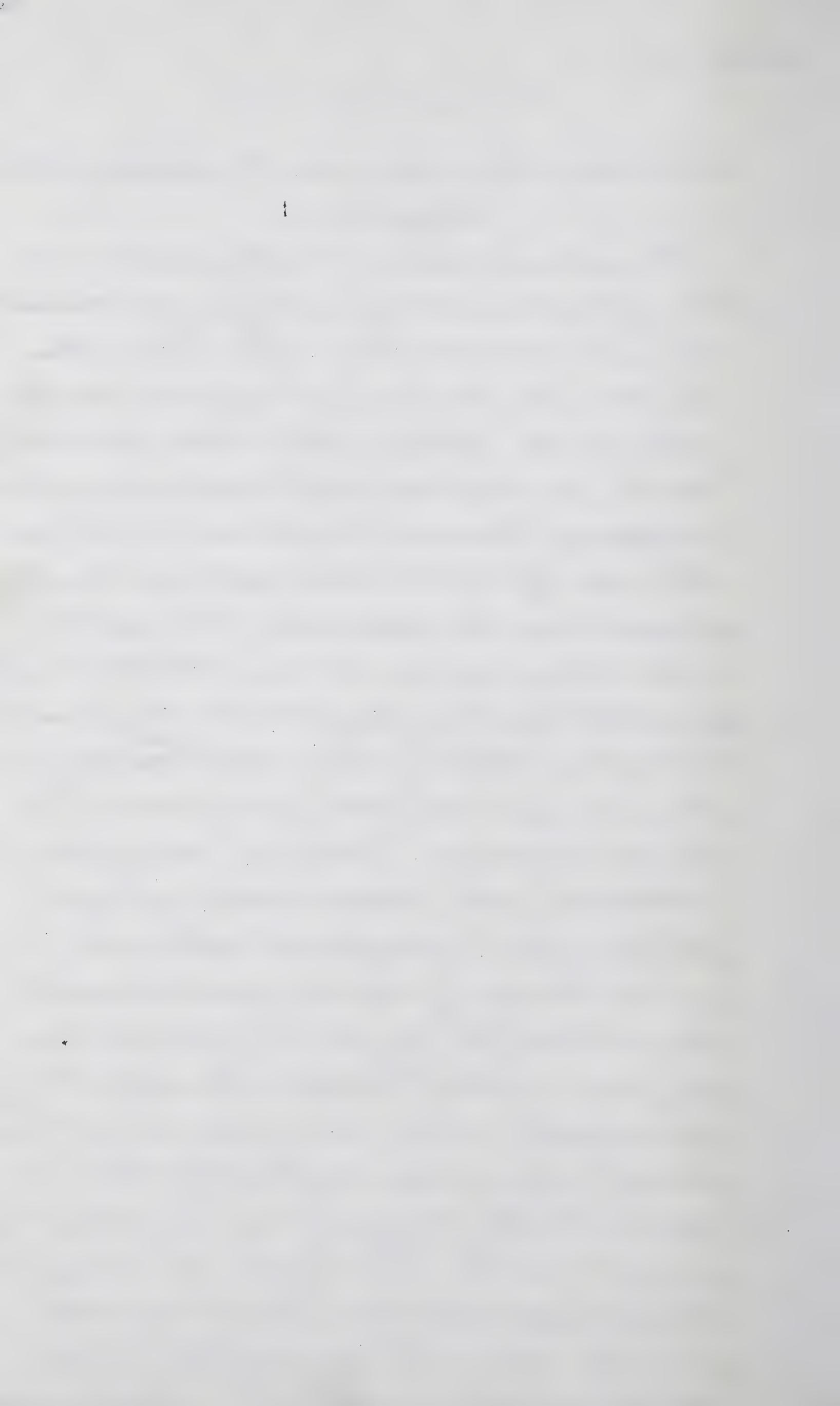
on a branch in the alder to the NW of
the nest tree about 6 ft. above the nest &
placed her head carefully on the limb
with a motion first to the left & then to
the right. She then went to the nest, first
stopping for a moment or her short comb
above the nest. I look around her, & then
came upon the nest - without feeding young.
She was on the nest for for about two min.
Then off for almost a minute & then was
on for 2 more minutes. She left the nest
for three minutes, returned without feeding
young. Lots jolted her head from side to side
as she was seen doing before. She was on
the nest for 3 min. & then flew off. Returned after
6 minutes, perched on the nest edge & proceeded
to feed the nestlings. She jolted downward
with her head & then followed some pumping on
her part which, however, resulted in only a slight
up & down movement of her head. She repeated this
movement on the same side after pulling her head
out & then she shifted to the other side & repeated
the same motions. She gave back to her
right & then to her left again.

M. Peterson, 1942

Calliope Hummingbird

E. Fork Sheep Creek, 5,500 ft., Kings Canyon, Fresno Co., Calif.May 30, 1942

She sat on the nest 12 minutes until 12:18. Flew off and was out of sight for a few moments. Then, she was seen descending her back on the alder tree. She flew from perch to perch on the alder, in the Golden Oak & so on as needed. At 12:21, she flew back onto the nest without feeding her young. She sat on the nest 2 min. (12:23) and then was off. At 12:25, she reappeared. First, she perched on the south side of the nest (1st time she has ever been on any but the 'bad' side) and started to feed her young. However, she pulled her back up and shifted positions to the ^{west}~~east~~ edge of the nest, her usual place, and proceeded to feed the nestlings. This time, she gave a downward jink, making her neck & pumped gape vigorously, her feet apparently well braced against the nest edge. Then she raised her back & seemed to lean over the side (^{her back} N) of the nest; then, she jabbed a little to the right with exactly the same pumping motion and once more shivered down over her young - she sat quite still for about 1 minute & then was off again. She was completely out of sight for 6 minutes. On her return, she showed directly to the nest & set directly down. She made no move to feed her nestlings. This was the first time she did not sit facing me (slightly E. or west) she faces south.



M. Redon, 1942

Calliope Hummingbird

E. Fork, Sheep Creek, 5,500 ft., King's Canyon, Fresno Co., Calif.

May 30, 1942,

She sat quietly on the nest for about 3 minutes, then flew off, remaining away for about 2 minutes. On her return, she perched on the West side of the nest again and proceeded to feed her nestlings. She thrust her neck quite far down apparently, and in the course of her preening would pull the young bird's head up, so you could see his yellow belly much paler than the first time I saw it, and round head, bobbing up & down. She fed each about 4 times & seemed quite violent about it this time. Then she moved over the nestlings again; I notice that as she pulls her breast forward, she is apparently still clutching the nest edge, and she pulls her neck down & forward so that her neck and back form a straight line. She does not pull her neck up until she is safely settled on the nest ~~out~~, fluffing her wings & whitening her tail in the process of settling down.

After remaining on nest 10 min., she left. Returned in 5 min. and fed young - had about 3 times. No sign of or thru all the - took time off for 5 min. Found her sitting on nest at 1:15 - My position was now S E of nest (nearer S). Left nest for 4 min. Returned, did no feeding, sat facing S & Sums Done. Her more of her breast shown above nest edge now than showed before -

M. Ridon, 1942

Calliope Hummingbird -

E. Fork Sheep Creek, 5,500 ft., Kings Canyon, Fresno Co., Calif.May 30, 1942

Table showing time on & off nest & time of feedings.

| | |
|--------------------|-------------------------------------------------------------------------------------|
| 11:17 - 11:24 = 7 | Sat on nest |
| 11:24 - 11:26 = 2 | Away from nest - no feeding on return |
| 11:26 - 11:29 = 3 | On nest |
| 11:29 - 11:30 = 1 | Off nest - Fed nestlings on return - |
| 11:30 - ? | On nest |
| ? - 11:38 | Off nest - Fed nestlings on return |
| 11:38 - 11:46 = 8 | On nest |
| 11:46 - 11:49 = 3 | Off nest - cleared back - no feeding - |
| 11:49 - 11:51 = 2 | On nest |
| 11:51 - 11:52 = 1 | Off nest - no feeding |
| 11:52 - 11:54 = 2 | On nest |
| 11:54 - 11:57 = 3 | Off nest - no feeding |
| 11:57 - 12:00 = 3 | On nest |
| 12:00 - 12:06 = 6 | Off nest - Fed young on return - |
| 12:06 - 12:18 = 12 | On nest |
| 12:18 - 12:21 = 3 | Off nest - flew from perch to perch near nest, cleared back on alder - no feeding - |
| 12:21 - 12:23 = 2 | On nest |
| 12:23 - 12:25 = 2 | Off nest, fed young - |
| 12:25 - 12:31 = 6 | On nest |
| 12:31 - 12:37 = 6 | Off - no feeding |
| 12:37 - 12:45 = 8 | On nest |
| 12:45 - 12:46 = 1 | Off nest - feeding |
| 12:46 - 12:49 = 3 | On nest |
| 12:49 - 12:54 = 5 | Off - no feeding |

M. Peterson, 1942

Calliope Hummingbird

E. Fork Sheep Creek, 5,500 ft., King Canyon, Fresno Co., Calif.May 30, 1942

Table of feedings, etc. (cont.)

12:54 - ~~1:00~~ 1:04 = 10 On nest1:04 - 1:09 = 5 Off nest - fed nestlings on return
Movement to S.E. of nest & to get water -
disturbed her -

1:15 - 1:22 = 7 On nest -

1:22 - 1:26 = 4 Off nest - no feeding

1:26 - 1:35 = 9 On nest

1:35 - 1:38 = 3 Off nest - Fed young

1:38 - 1:39 = 1 On nest

1:39 - 1:50 = 11 Off nest - no feeding on her return

1:50 - 1:57 = 7 On nest

1:57 - I tried now to look into the nest - bird flew about wildly
 Summary shows that in 2 hrs. and 40 minutes mother fed young 7 times.

M. Redon, 1942

Calliope Hummingbird

E. Fork Sheep Creek, Knob R. Canyon, 5,500 ft., Fresno Co., Calif.

May 31, 1942

Arrived at Calliope nest at 9:55. At 10:05, she was sitting on the nest. Timing proceeds from that time. She was sitting fairly erect in the nest; one could see about 1 inch below the bottom of her black throat markings; facing S.E., ^{left-} appeared 3 min. later, from NW. flew directly into nest; no feeding of young. Faced NE; sitting straight - no side to side head move-^{constant} - ment observed, ^{for few seconds} after she sat on nest. I should note here that she was off the nest when I came & seemed today to be little disturbed by my presence. Not so straight in nest this time; only about a quarter inch of nest below bottom of black throat markings visible. Reappeared after about 4½ min.; sat for a second on high branch (about 7 ft. above nest) of alder and cleaned bill on bare limb, wiping it with side to side head movements on the branch; then she moved to a branch in nest tree, about 2 ft. above nest; sat at tip of this branch for a moment; came down stopped in mid air direct line with nest & about a foot away, and then settled on nest edge & fed young. Each seemed to receive about 3 feedings; again I had impression that she ~~alternated~~ alternated from one to other; I am not certain of this, however. She jabbed down into offspring's mouth, after a pause for a short time above nest edge in feeding nest, and with neck arched, would

M. Redon, 1942

Calliope Hummingbird

E. Fork Sheep Creek, 5,500 ft. (?) King R. Canyon, Fresno Co., Calif.

May 31, 1942

pump up and down, preserving her balance with slight wing flutter. She settled again on the nest in the awkward fashion which I have observed her to use since the eggs have been hatched; this consists of pulling her neck out with head down for balance, & then sliding her body onto nest with several ^{gentle} jolts. She tugs at her wings a little & then feels fairly well settled. This time she faced almost due South as she sat. Sat on nest 5 minutes and then flew off. Returned in four minutes; sat directly on nest, faced NE (almost directly facing me and this time = side to side head jolts for a second or so. Occasionally cocks her head slightly, after steady jerking from side to side ceases, and also turns neck occasionally to one side or the other. When she leaves nest (sat 4 min. this time) she varies the direction which she immediately takes, then reverses & often, although not invariably, dives NW & down into canyon. I have still been unable to observe exactly where she goes or what she does. Several times, when she has returned

M. Redon, 1942

Escape Hummingbird

E Fork Sheep Creek, 5,500 ft., Kings R. Canyon, Fresno Co., Calif.

May 31, 1942

in vicinity of nest & gone from perch to perch my impression has been that she was insect hunting; however, these times when she leaves for periods of 5 and 6 minutes, it is impossible to say where she goes. Furthermore, although I have wanted to investigate the territory in the direction in which she goes most often, it is impractical to do this because the sides of the gorges are steep & covered with slippery loose gravel & Mr. Nixon tells us that these steep sides are good things to stay away from.

Was gone six minutes & fed young & return. Again slid onto nest, facing East (a little North of East actually) and facing me almost directly. It is an interesting thing to note that she ^{often} alternates. She leaves the nest & returns without feeding the young; next trip she feeds them on her return, etc. This has been true this for this morning, & was true yesterday afternoon. Yesterday morning she had been upset by my paying into the nest & perhaps this helps account for the irregularity in this sequence of events at that time. She stayed on the nest for 2 min. & then flew off again. N.W. I was able to follow her for a time & see

Caloenas Hammondi -

E. Fork Sheep Creek, 5,500 ft., Big R. Canyon, Mono Co., Calif.

May 31, 1942

her about 50 or 60 yds. away, at almost the level of the trail, stopping in mid air, then flying down & stopping. Then up & stopping. After perhaps 30 seconds of this, she was lost from sight. (Insect hunting?) On her return she perched just a second on the Alder, then she stopped just an instant on a branch 8 feet above the nest, perched at nest edge & fed young. Twice she prodded in one direction; with forceful pumping motion b/t. jabs. I could see the nestlings' heads surrounding hers. It is now a pale yellow & still short & broad. I could not estimate the length from what I saw. Then she raised her head into the air and made a sort of swallowing movement with her throat. She now aimed a little to the right (her right) of where she had previously gone down & once more the sporadic pumping movement occurred. She seems to lean farther down into the nest now so that only a quarter of an inch of her head can I see at its lowest point in the process. She settled again on the ^{nest} tree, now facing the N.W. and turned her head, ^{now} as I turned ^{now} to look at her. time = 11:05 and the sun is on her now. Stayed on nest 20 min. Soaring amount, raising her head occasionally; She flew NW & down into the gorge again -

M. Redon, 1942

Calliope Hummingbird

E. Fork Sheep Creek, 5,500 ft., Knob R. Canyon, Fresno Co., Calif.May 31, 1942

Stayed away 8 months. Upon her return, she perched on edge and fed nestlings again. Again - down jerks + several fatal looking purring downward jerks. Then she raises her beak above horizontal, lowers it again + looks from side to side an instant. Selecting next the mouth fresh to her right, she again proceeded to pump + purr. Then she slid onto the nest, facing East + looked around a little; gave a few side to side jerks, lift after 4 min. Stayed away about 3 min. + was seen during the last minute of that time on perch in alder, then hovering in air for awhile, and then in junc below nest, short bands which seem to be a favorite, + then quickly into nest. Facing somewhat N of E. Flycatcher's nosehead - Hummer on nest raises head + back at L of 60 degrees - moves head slightly from side to side. Stayed on nest 1/2 min. + then off - again = NW + down. Reappeared at 11:58 - in scrub ^{golden} oak S.E of nest tree. Perched + wiped beak, straightened feathers. Up about 6 inches, changed direction, now facing NE + preened + cleaned beak. High in alders. spread tail + wings, cleaned bill; Edge of nest - fed young. Surfaces a high E of S.

M. Ridon, 1942

Calliope Hummingbird

E. Fork Shaver Creek, 5,500 ft., Rmjo R. Canyon, Fresno Co., Calif.May 31, 1942

Took a half-hour recess (12:00-12:30) and then back to the Calliope. At 12:54, she flew off the nest, having stayed over 12 minutes, & flew NW & down a gap - Reappeared at 1:01 - fed young & disappeared again. Listenin without settling. Reappeared at 1:09 high in alder - cleaned beak, flew lower (6 ft or so), cleaned beak; down to low branch on west tree (her usual one) perched there for a while - I should have remarked before this, that when she perches, her wings flutter constantly & especially with each turn of her head, etc. She flew onto nest (wings still beating for a second after landing). Faced NE. Stayed over 5 min. then flew off. At 1:18 reappeared on alder - Preened, cleaned beak, spread tail, etc. Nest now in shade - Disappeared again for a few seconds & again seen in alder. Perched on branch below nest for a while - looking around - Then back to alder - back to small branch below nest. Looks around - Edge of wt - Infusing - Left nest at 1:33 - Reappeared on alder - Tucked tail, spread wings; cleaned bill; scratched - flew toward nest + scattered shower of water (?) as she flew -

M. Ridon, 1942

Calliope Hummingbird

E. Fork Sheep Creek, 5,500 ft., Kings R. Canyon, Fresno Co., Calif.May 31, 1942

Trudie took in nest when she disappeared again. Result - I saw 2 very fuzzy, sooty things. I found one head with difficulty & even then could make out no details of it.

Mother flew around me excitedly and perched right in front of me as before. I left for camp at 2 p.m. instead of return later.

My morning figures show that during the 2 hrs from 10:00 a.m. to 12:00 m. she fed the birds 5 times. She fed them once bet. 12:30 and 1:30.

Retired at 4:30, dinner - frustrated off. In nest at 4:35 until 4:46, came on nest flying & sat facing East. Slapped away ~~four~~ for 13 min. During time seen flying near nest tree once. Fed the young very vigorously. Then was off again without settling in nest. Seen on various perches on nearby trees. Finally came on perch below nest (previously mentioned) & flew into nest. So feeding.

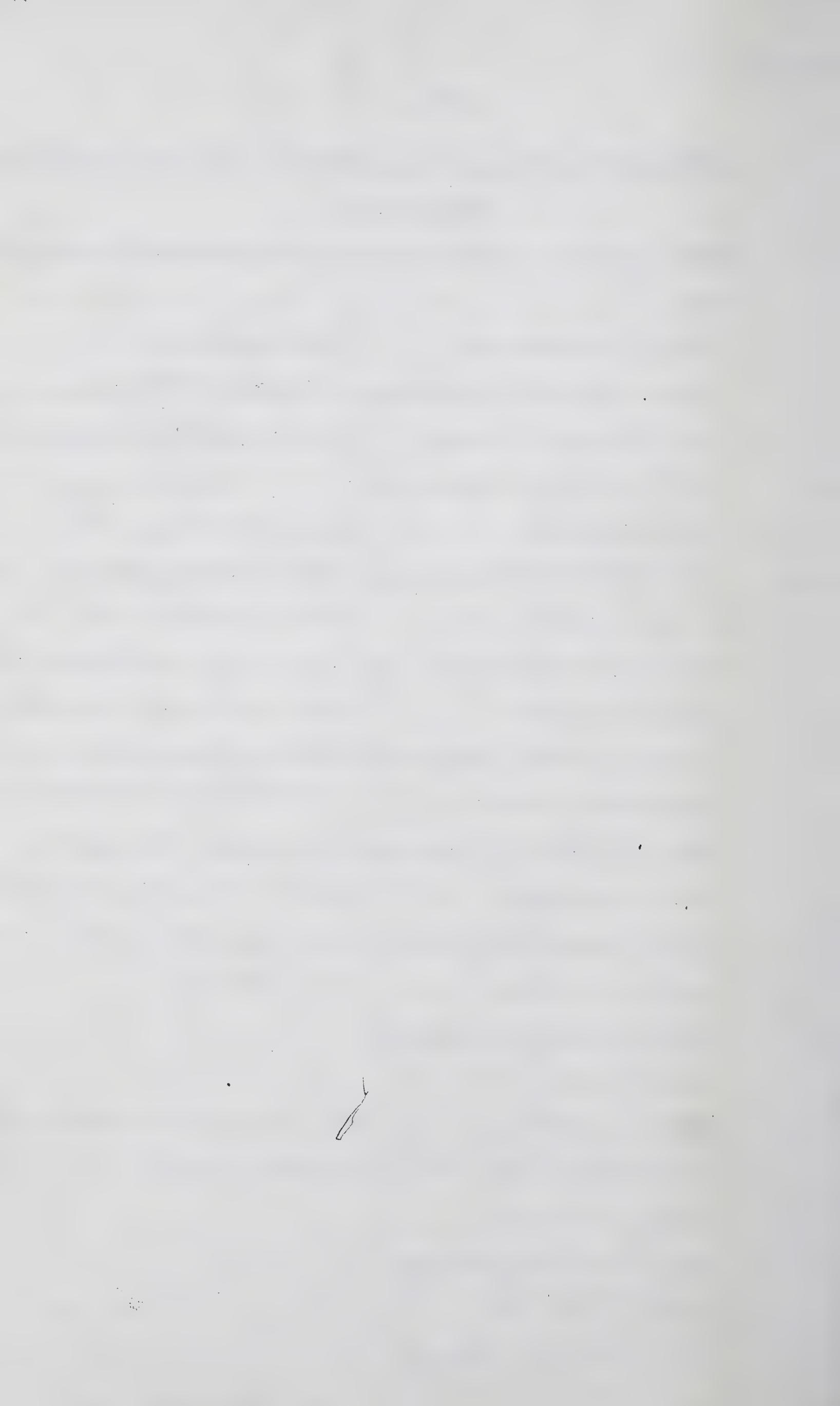
M. Redon, 1942

Calocore Hummingbird

E. Fork Sheep Creek, 5,500 ft. Kings R. Canyon, Fresno Co. Calif.May 31, 1942

Table of feedings & time spent on nest and away from nest.

| | |
|------------------------------------------------|--------------------------------------------------------|
| -10:05 - 10:09 = 4 On nest | 12:42 - 12:53 = On = 11 |
| 10:09 - 10:12 = 3 Off nest; no feeding) | 12:53 - 1:01 = 8 = (Off - feeding) |
| 10:12 - 10:18 = 6 On nest | 1:01 - 1:10 = (off flew off unmed.) |
| 10:18 - 10:23 = 5 Off - (feeding) | (no feeding) - |
| 10:23 - 10:28 = 5 On | 1:10 - 1:15 = On - 5 |
| 10:28 - 10:32 = 4 Off - (no feeding) | 1:15 - 1:21 = 6 off (no feeding) |
| 10:32 - 10:36 = 4 On nest | 1:21 - 1:33 = On = 12 |
| 10:36 - 10:42 = 6 Off - (feeding) | 1:33 - off - I tried @ look into nest with mirror - |
| 10:42 - 10:48 = 6 On | mother flying around me - |
| 10:48 - 10:49 = 1 Off - (no feeding) | |
| 10:49 - 10:51 = 2 On | |
| 10:51 - 10:58 = 7 Off (feeding) | 4:35 - 4:46 "On nest |
| 10:58 - 11:18 = 20 On | 4:46 - 4:57 - Off - nest - feeding |
| 11:18 - 11:26 = 8 Off - (feeding) | 4:57 - 5:10 - Off - (left unmed.) |
| 11:26 - 11:30 = 4 On | feeding - |
| 11:30 - 11:33 = 3 Off - (no feeding) | |
| 11:33 - 11:45 = 12 On | |
| 11:45 - 12:00 = 15 Off - (feeding) | By. 10:00 and 12:00 = 2 hrs. = 6 feedings |
| | By. 12:30 - 1:30 = 1 hr. = 1 hr. = 1 feeding |
| 12:30 - 12:36 = 6 On | |
| 12:36 - 12:38 $\frac{2}{3}$ (off - no feeding) | |
| 12:38 - 12:40 = 2 On | |
| 12:40 - 12:42 = 2 (Off - no feeding) | |



M. Ridon, 1942

Calliope Hummingbird

E. Fork Sheep Creek, 5500ft, Knob R Canyon, Fresno Co., Calif.June 1, 1942

10:50 - Feeding young from S. side & sat facing N.W. Stayed on nest 9 min. - & then flew off - N.W. & up. Returned near nest a few minutes later. Might have gone in, but some people came up the trail & she again disappeared. Seen at 11:10 in alder, wiping her beak. Came to nest. West side this time & fed young; Gaster = much stronger, heads & backs easily visible as she feeds them. There was an interruption, and I lost track of her for a while. When she returned, she sat on the nest for a time facing NW and several times I saw her move her wings ~~as though she were settling them~~. & ruffle them up now and then. She left the nest & at 11:45 I saw her sitting in the alder, vigorously preening; scratching; wiping her bill, fanning the tail, etc. A minute or so later she was on the usual edge of the nest, feeding her nestlings, almost all of whose heads were visible. Settled on nest facing S.E. Left nest again for a while. Returned without feeding young - faced S.E. On nest 4 min. - flew off in a wide arc which finally directed her NW again.

M. Redon, 1942

Calliope Hummingbird

Calif.

E. Fork Sheep Creek, 5500 ft., Knob R. Canyon, Fresno Co.,

June 1, 1942

She stayed away only about a minute and a half or two. When I turned, she was already on the nest, facing SSW and I do not know whether she fed her nestlings or not. Sat on nest about 4 minutes and then flew off. Returned in about 4 minutes & fed her youngsters. Now that I can see the nestlings' heads as she feeds them I can see that she does alternate from one to the other in her feeding & that between each, she sort of pulls her head forward & jerk it back (forcing food up?) She flew off immediately & then returned in about 3 minutes without feeding her young.

On nest 11 min. and then flew off S NW again. Arrived without feeding young; fed 5. flew off to SW after 2 min. on nest. Reappeared 7 minutes later & fed young. Definitely she fed them alternately this time; she sat facing SSW S.E. when she had finished. On getting on the nest she flapped her wings this time. Left after a few minutes. Did not feed young on return & flew into nest facing E. Sat on nest 4 minutes & then flew off to the NW & down again.



M. Redox, 1942,

Calliope Hummingbird

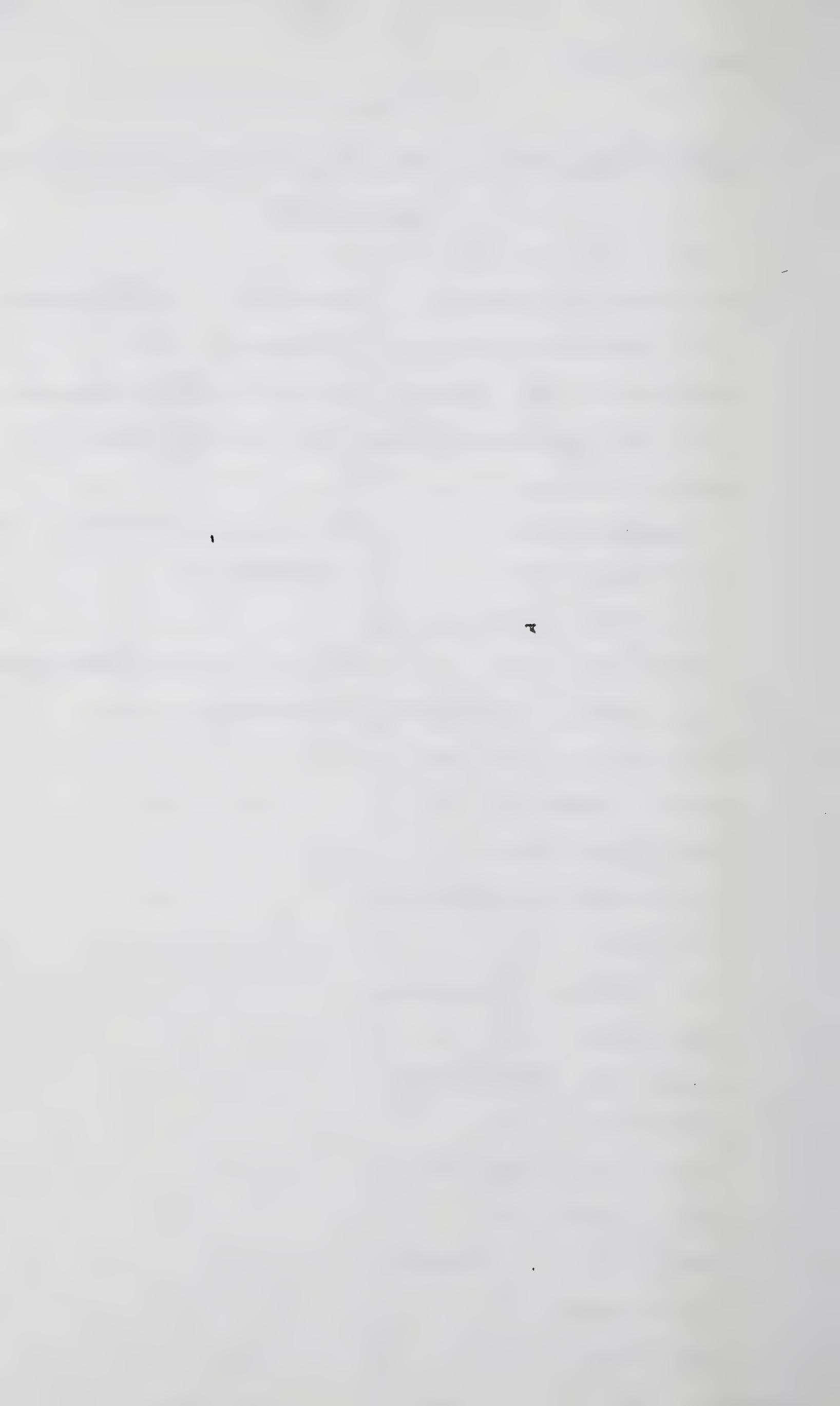
E. Fork Sheep Creek, 5500 ft., Knob R. Canyon, Fresno Co., Calif.June 1, 1942

Hours of feedings, etc.

| | | |
|-----------------------------------------------|-------------|--------------------|
| - 10:50 - off - feeding | 1:00 - 1:10 | Off. (feeding) |
| 10:50 - 10:59 = On nest | 1:10 - 1:15 | On |
| 10:59 - 11:11 = off - feeding | 1:15 - 1:28 | Off - (No feeding) |
| 11:11 - 11:13 = off (few arrived.) no feeding | 1:28 - 1:32 | Off - (feeding) |
| 11:13 - 11:14 = On | | |

Interruption -

| | |
|------------------------------------|-----------------------------------|
| - 11:19 - 11:34 = On - | Bt. 10:50 & 11:14 = 24 min. = |
| 11:34 - 11:46 = Off - (feeding) | 2 feedings. |
| 11:46 - 11:54 = On | |
| 11:54 - 12:00 = Off - (no feeding) | Bt. 11:20 - 1:30 = 2 hrs. 10 min. |
| 12:00 - 12:04 = On nest | = 5 feedings - |
| 12:04 - 12:06 = Off - (?) | |
| 12:06 - 12:10 = On | |
| 12:10 - 12:14 = Off (no feeding) | |
| 12:14 - 12:15 = On | |
| 12:15 - 12:18 = Off (no feeding) | |
| 12:18 - 12:29 = On | |
| 12:29 - 12:32 = Off (no feeding) | |
| 12:32 - 12:34 = On | |
| 12:34 - 12:41 = Off (feeding) | |
| 12:41 - 12:44 = On | |
| 12:44 - 12:47 = Off (no feeding) | |
| 12:47 - 12:52 = On | |
| 12:52 - 12:58 = Off (?) | |
| 12:58 - 1:00 = On | |



M. Redon, 1942

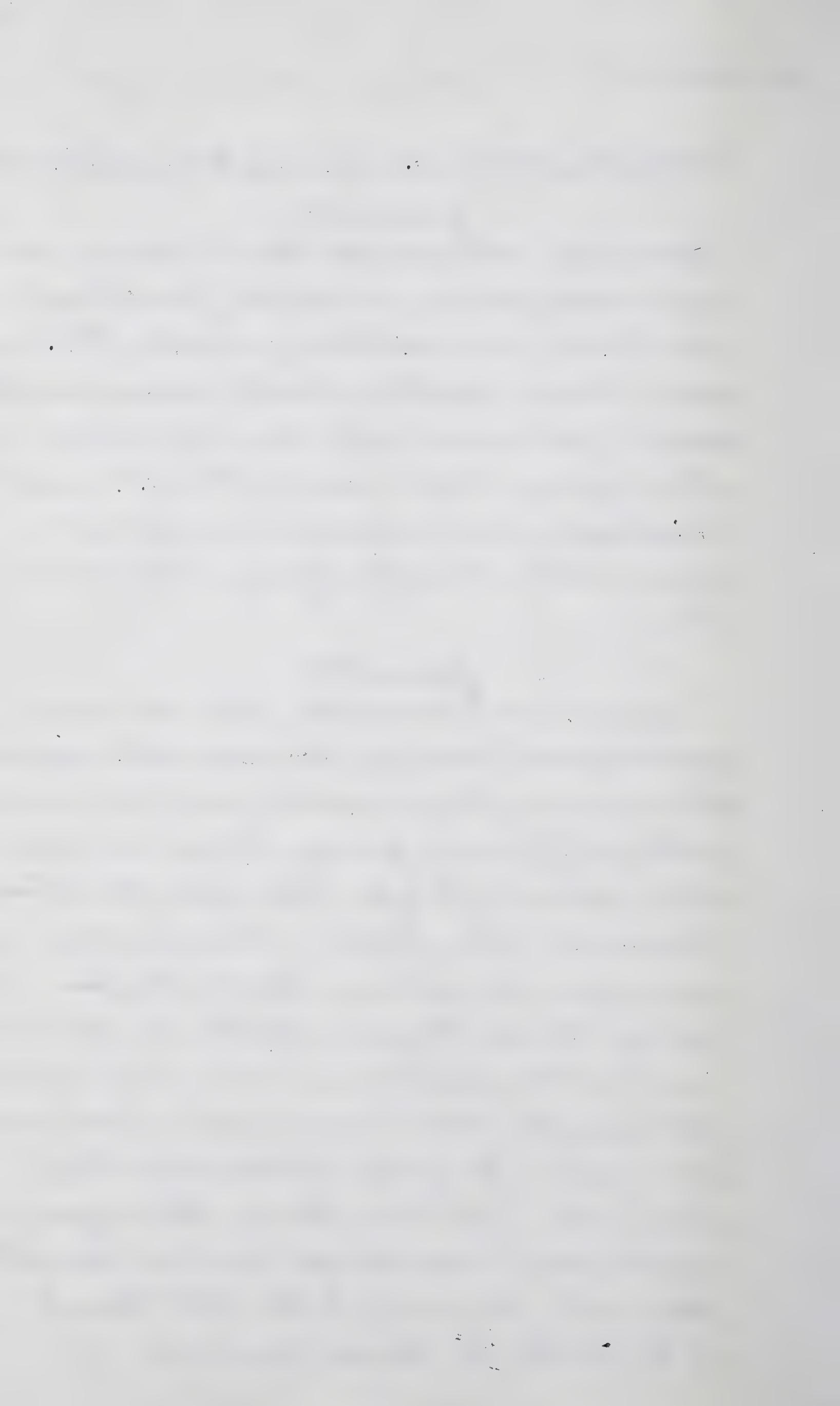
Calliope Thunbergianus

E. Fork Sheep Creek, 5500 ft., Kings R. Canyon, Fresno Co., Calif.June 1, 1942

Appeared in oak near nest tree. Perched in sun - light and preened, scratched, fanned tail etc. I was not watching as she entered nest, but I looked barely 2 seconds after and I feel sure she had not time to feed young. Left nest after a minute. Reappeared for a second, then left nest again & returned to feed young. I left at this time.

June 2, 1942

Arrived at nest about 7:50 a.m. and saw that bird was off the nest. She appeared at 7:54 and flew directly onto the nest, without feeding young. Faced N.E. (I was sitting somewhat NE of her. Left nest after about 5 minutes. Gone 8 min. - Flew directly into nest upon her return - did not feed her young. Faced N.E. again. Weather here cloudy and rather cold now, sun not up here yet. Left after about 10 min. & returned in 4 min. to feed young. Fed first one & then the other; each was fed three times. Flew again onto nest on which she stayed barely a minute & then she flew off to the S.W. Faced S.E. while on the nest this time.



M. Ridon, 1942

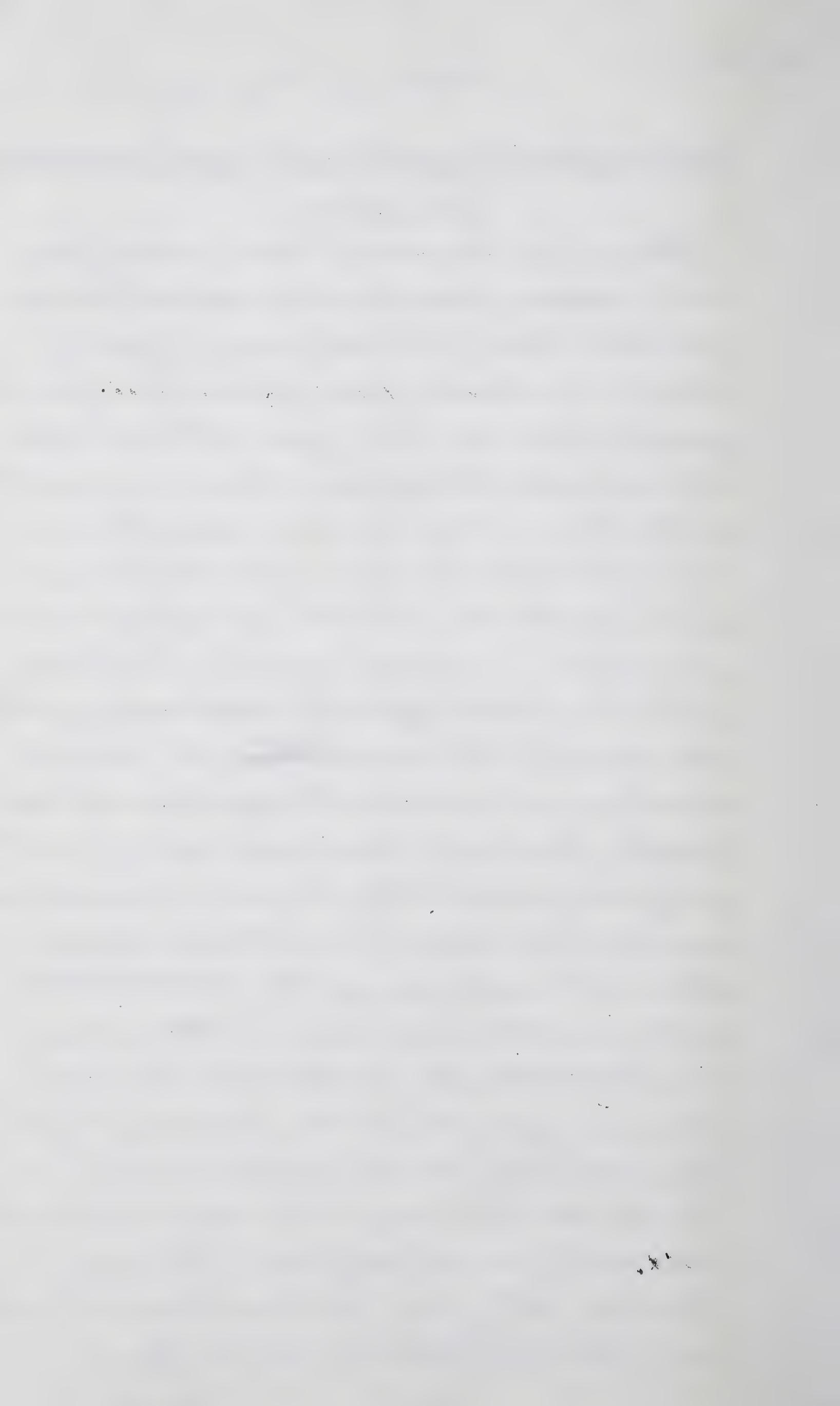
43

Calliope Hummingbird

E. Fork Sheep Creek, 5500 ft., Kings R. Canyon, Fresno Co., Calif.

June 2, 1942

Reappeared in several min. coming from S.E. & ~~south~~ flew directly onto nest wings beating. Faced N.E.; no feeding of young. Searched nest with field glasses for sight of young while she was gone. They cannot be seen at all from below (i.e. from the trail), while sitting on nest, kept turning head from side to side with beak held at angle of about 60° with horizontal. Could see nothing unusual up above. Watching insects (3). Flew off while I was writing this comment. Did not ~~see~~ ^{see} in which direction she went. Reappeared in about 11 minutes from S.W. Perched on edge of nest & fed young alternately. As far as I could see, one was fed 3 times & the other twice; slid onto nest facing S.E. Noticed that between each feeding i.e. ~~to~~ during the time that she had pulled her beak from one youngster was preparing to jab it into the other mouth, she usually threw back her head in a swallowing movement. She sat very low in the nest this time ~~lower~~ her head & beak almost in a straight ^{line} at an angle.



M. Ridon, 1942

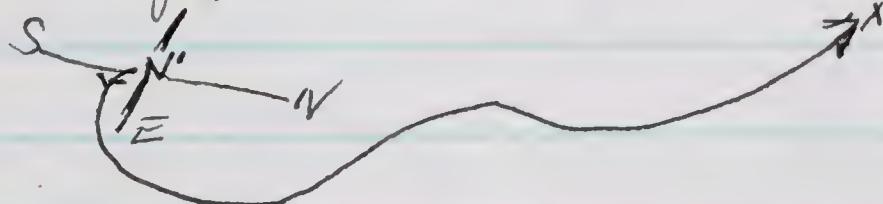
43
44.

Calliope Hummingbird

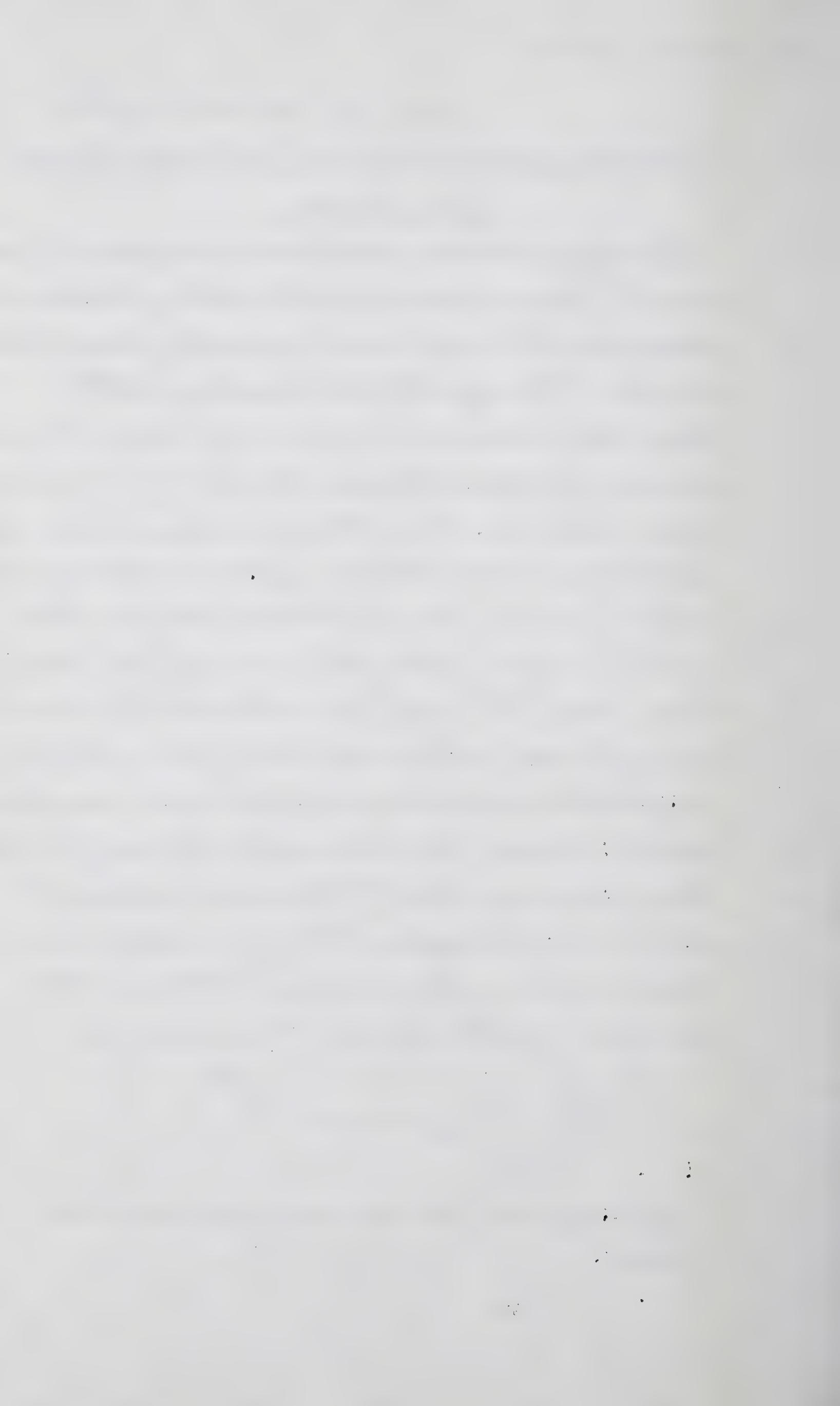
E. fork Sheep Creek, 5500 ft., Knob R. Canyon, Fresno Co., Calif.

June 2, 1942

Left after about 6 minutes and respassed in 3 min. ^{from SW.}, flying directly into nest & for several seconds turning head rapidly from side to side. Facing N.E. & sitting very erect this time. Could see about $\frac{1}{2}$ in. of breast below location of black throat markings. In a spread before I could note the direction she took appeared in about 4 min., perched at edge of nest & fed nestlings. I could not see the duration of her first job, however, ^{the} next three, ^{in a row}, seemed directed ^{various} at the same part of the nest. Slid on nest facing N.E. & ruffled her wings several times as she settled down. Did not notice, between feedings, the throwing back of the head which I had noticed before. Flew off in about 5 min. made an arc & flew around toward N.E. swooping downward & then up again.



If N' represents the nest, she followed line
 $N'X$.



M. Redox, 1942

45

Calliope Hummingbird

E. Fork Sheep Creek, 5500 ft., Lundy R. Canyon, Fresno Co., Calif.

June 2, 1942

Figures showing time of feeding, etc.

7:54 - 8:01 = On nest

8:01 - 8:09 = Off - (No feeding)

8:09 - 8:19 = On

8:19 - 8:23 = Off (Feeding)

8:23 - 8:24 = On

8:24 - 8:26 = Off (No feeding)

8:26 - 8:33 = On

8:33 - 8:44 = Off (feeding)

8:44 - 8:50 = On

8:50 - 8:53 = Off (No feeding)

8:53 - 8:55 = On

8:55 - 8:59 = Off (feeding)

8:59 - 9:05 = On

9:05 - 9:17 = Off (feeding)

9:17 - 9:19 = On

9:19 - 9:21 = Off (No feeding)

9:21 - 9:23 = On (gray, pink)

9:23 - 9:32 = Off - (No feeding)

9:32 - 9:34 = On

9:34 - 9:49 = Off - (Feeding)

9:49 - 9:50 = On

9:50 - 9:52 = Off - (W, feeding)

9:52 - 9:57 = On

9:57 - 10:16 = Off - (feeding)

10:16 - 10:18 = On

Interruptions here -

10:30 - 10:32 = more "

Bt. 8:00 a.m. & 10:20 - 2 hrs. & 20 minutes - fed her nestlings 6 times.

M. Becker, 1942

45

Calliope Hummingbird

E. Fork Sheep Creek, 5500 ft., Kings R. Canyon, Fresno Co., Calif.

June 2, 1942

Saw her again in about 10 min. in one of high branches of alder. Sat & cleaned back, ruffled wing, & fanned tail. Moved down lower in alder & repeated process. Finally, Dived to nest; fed young; did not observe how many times each fed; noticed that white breast feathers seemed a little ruffled & that, as she pumiced back down with young in mouth, the beak was slightly opened for a second at the base, which I could see & then closed. Moved on to nest, facing first SE & then NE, i.e. terminally nest with some flapping of wings. On went for a few seconds. Then off & then on again. Gray squirrel appeared on fallen log below nest; worked Hammer quickly at nest & hopped around him a few seconds; apparently not disturbed by him, because then she flew into alder above squirrel & cleaned her back & preened her feathers for a while. Moved into Oak S.E. of nest tree & preened & scratched some more. Kept this up for quite a few min; carefully extending wing & running beak down it; then turning

Dr. Ridon - Aves

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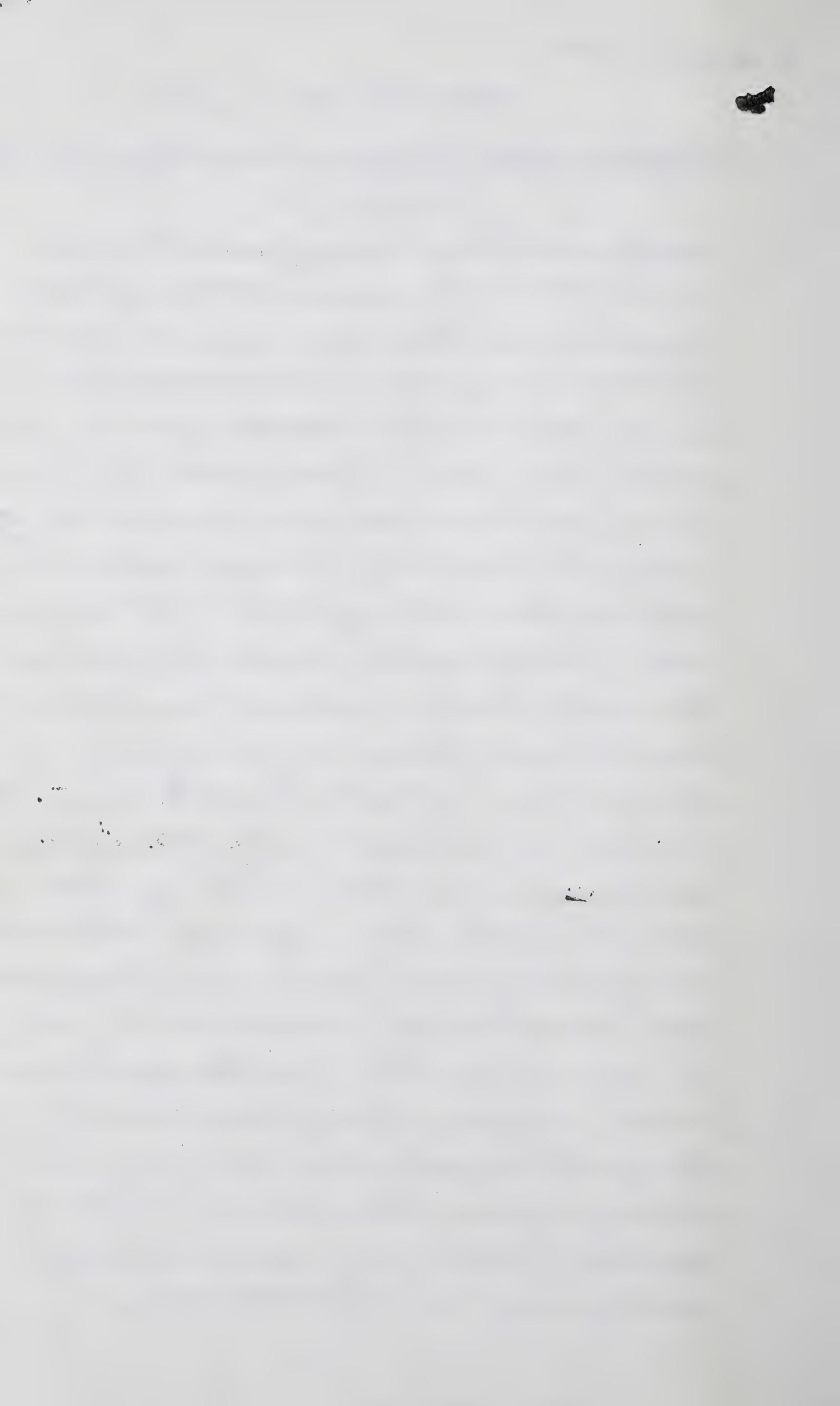
Calliope Hummingbird

E. Fork Sheep Creek, 5500 ft., King R Canyon, Fresno Co., Calif.

June 2, 1962

neck & and running back down her back; bending neck & preening breast feathers. Scratched vigorously with both beak & foot. (Presence of ectoparasites?) Would look around nervously lit. attacks upon herself with that long beak. Perched about 6 ft from ground ~~at~~ about one inch from the end of a small bare twig. Swifly alighted a foot from tree trunk & about 10 ft. from nest. Flew ^{low} then into branch of nest tree & then, after hovering about for a second, mounted nest (flew in) facing E.

She had been off nest about 2 min but had been within sight of it all this time & had been preening & scratching. On nest 2 minutes & then off with NW sweep described & drawn previously. Reappeared about 10 minutes later in small Oak 5.5 of nest tree perched for a while; in Alder etc. hovered around, disappeared for a few seconds & then perched on nest edge fed young. Slid onto nest so facing S.E & whirled N.E wings, fluttering fluttering. No sun here yet, to try closely - Left nest & flew NW again.



M. Ridon, 1942

Calliope (Bartramianus)

E. Fork Sheep Creek, 5500 ft., King's R. Canyons, Fresno Co., Calif.

June 2, 1942

Reappeared shortly; preened feathers a little & flew out nest; ^{face N.E.} absence only. Of about 2 minutes this time. Remained on nest 5 minutes & then flew off in same arc described & diagrammed above. Was gone for almost 15 min. Seen to arrive in limb of oak S.E. of nest tree - sat & preened & looked around; fluttered wings & fanned tail. Heard a faint squeak & the mother flew straight way to nest edge & fed young. Total of about 4 or 5 dozen work jobs. Slid on nest facing a little S. of East - Saw come out for a while & again disappeared under clouds for a second - When wind blows she jerks her neck & shakes her head - . Flew off at approach of H. Fisher & B. Storer, at about 10:20. - Reappeared at about 10:30 from S.W. & sat on nest. -

Water Ouzel -

May 22, 1942 - W. Fork Sheep's Creek, Kings R. Canyon, Fresno Co., Calif.

One bird seen flying about region of swift flowing water & falls. landed on lichen-covered rock & seen with green protruding from mouth. General color is sooty gray tail short, body heavy, wings long & seem quite powerful. Wades in water edge & along rocks head bobbing down vigorously all the time. Flew short distances & then landed in rocks farther down. Actually went into water ^{wading} ~~from~~ edge which was flowing rapidly & foam-covered; did not stay long & flew out. Here again received impression that wings long & fairly broad. While the one we were watching was downstream, we saw another one fly up toward the 1st fall above the bridge bank & beyond some rocks projecting from edge to the left (facing falls). The other bird (one we had been watching) then arose in flight, circled & followed. Shortly after ~~the other~~ one flew down stream & out of sight; the other followed, but stopped & began working its way downstream. Then, disappeared. One appeared about 5 mi. later with something green in its mouth & flew back behind fall - same place as before. Then flew out & down stream out of sight.

M. Redon

Sparrow Hawk -

May 21, 1942 - End of Old Road, Kipp Canyon, Fresno Co., Calif.

I seen flying overhead and land at very top of an Incense Cedar; flew off, and toward ~~yellow~~ pine ^{very} top of which was another Sparrow Hawk. Two met & both flew to top of Sugar Pine; one near the other. Then one (male?), which appeared to be larger, flew downward & the other flew off in some other direction (East?).



